CPD-200EST

SERVICE MANUAL

CPD-200ES
S. Hemisphere Model
Equator Model

Chassis No.SCC-L16B-A

X2F CHASSIS

SPECIFICATIONS

Picture Tube	0.26 mm aperture grill pitch 17 inches measured diagonally 90-degree deflection
Video image area	(15.9" maximum viewing image) Approx. 327 x 241 mm (w/h) (12.9 x 9.5 inches)
Logical resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Physical resolution	Horizontal: Max. 1024 dots Vertical: Max. 768 lines
Standard image area	Approx. 312 x 234 mm (w/h) (12.3 x 9.3 inches)
Deflection frequency	Horizontal: 31 to 70 KHz Vertical: 50 to 120 Hz
AC input voltage / current	100 to 120 V, 50-60 Hz, 1.8 A (max.) 220 to 240 V, 50-60 Hz, 1.0 A
Dimensions	406 x 431.5 x 420 mm (w/h/d) (16 x 17 x 16.5 inches)
Mass	Approx. 19.0 kg (41 lb. 13 oz.)

Design and specifications are subject to change without notice.

TRINITRON® COLOR COMPUTER DISPLAY

MICROFILM

SONY®

POWER SAVING FUNCTION

This monitor meets the power saving guidelines set by the EPA Energy Star Program as well as the more stringent TC092 guidelines (NUTEK). It is capable of reduced power consumption when used with a computer equipped with Display Power Management Signaling (DPMS). By sensing the absence of the sync signal coming from the computer, it will reduce the power consumption as follows:

CAUTION: The Power Saving function will automatically put the monitor into Active-off state if the power switch is turned on without any video signal input. Once the horizontal and vertical syncs are sensed, the monitor will automatically return to its Normal operation state.

	State	Power consumption	Required resumption time	⏻ Power indicator
1	Normal Operation	≤110 W	———	green on
2	Suspend (1st step of power saving)	≤15 W	approx. 3 sec.	orange and green flashes alternately
3	Active-off (2nd step of power saving)	≤15 W	approx. 10 sec.	orange and green flashes alternately
4	Active-off (3rd step of power saving)	≤8 W	approx. 10 sec.	orange on
5	Power - Off	0 W	———	off

TIMING SPECIFICATION

Mode	1	2	3	4	5	6	7	8
Resolution(H x V)	640 x 480	640 x 480	800 x 600	800 x 600	832 x 624	1024 x 768	1280 x 1024	1024 x 768
Dot Clock(MHz)	25.175	36.000	49.500	56.250	57.283	78.750	108.000	94.500
Horizontal								
Hor. Freq. (kHz)	31.469	43.269	46.875	53.674	49.725	60.023	63.981	68.677
H-Total	31.778	23.111	21.333	18.631	20.111	16.660	15.630	14.561
H-Blanking	6.356	5.333	5.172	4.409	5.586	3.657	3.778	3.725
H-Front Porch	0.636	1.556	0.323	0.569	0.559	0.203	0.444	0.508
H-Sync.	3.813	1.556	1.616	1.138	1.117	1.219	1.037	1.016
H-Back Porch	1.907	2.222	3.232	2.702	3.910	2.235	2.296	2.201
H-Active (µsec)	25.422	17.778	16.162	14.222	14.524	13.003	11.852	10.836
Vertical								
Ver. Freq. (Hz)	59.940	85.008	75.000	85.061	74.550	75.029	60.020	84.997
V-Total	525	509	625	631	667	800	1066	808
V-Blanking	45	29	25	31	43	32	42	40
V-Front Porch	10	1	1	1	1	1	1	1
V-Sync.	2	3	3	3	3	3	3	3
V-Back Porch	33	25	21	27	39	28	38	36
V-Active (lines)	480	480	600	600	624	768	1024	768
Sync.								
INT(G)	NO	NO	NO	NO	NO	NO	NO	NO
EXT (H/V)/POLARITY	YES -/-	YES -/-	YES +/+	YES +/+	YES -/-	YES +/+	YES +/+	YES +/+
EXT (CS)/POLARITY	NO	NO	NO	NO	NO	NO	NO	NO
INT/NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

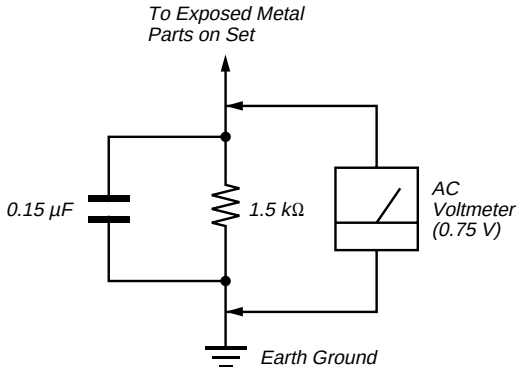

Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION OUAND LA BOBINE DE DEMAGNETISATION EST ENLEVEE.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONTIONNEMENT SUSPECTE.

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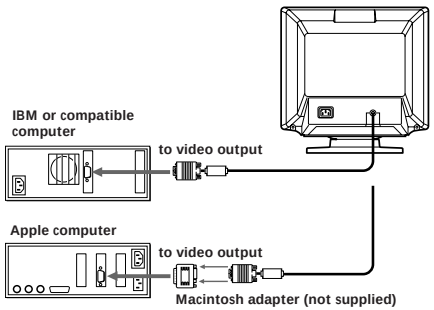
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 1
GENERAL

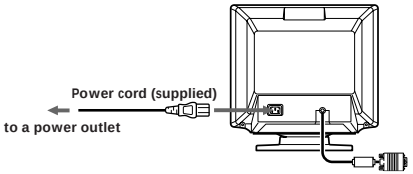
Getting Started

Before using this monitor, please make sure that the following items are included in your package: Multiscan 100ES/200ES monitor (1), power cord (1), warranty card (1), "Windows95 Monitor Information Disk" (1), and this operating instruction manual (1).
This monitor will sync with any IBM or compatible system equipped with VGA or greater graphics capability. Although this monitor will sync to other platforms running at horizontal frequencies between 30 and 70 kHz, including Macintosh and Power Macintosh system, a cable adapter is required. Please consult your dealer for advice on which adapter is suitable for your needs.

Step 1: With the computer switched off, attach the video signal cable to the video output.



Step 2: Attach the power cord to the monitor and the other end to a power outlet.



Step 3: Turn on the monitor and computer.

Step 4: If necessary, adjust the user controls according to your personal preference.

The installation of your Multiscan 100ES/200ES is complete. Enjoy your monitor.

1) VGA is a trademark of IBM Corporation.
2) VESA is a trademark of the non-profit organization, Video Electronics Standard Association.
3) Macintosh is a trademark of Apple Computer Inc.
4) Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.

Using Your Monitor

Preset and User Modes

The Multiscan 100ES/200ES has factory preset modes for the 8 most popular industry standards for true "plug and play" capability. For less common modes, the Multiscan 100ES/200ES's Digital Multiscan Technology will perform all of the complex adjustments necessary to ensure a high quality picture for any timing between 30 and 70□kHz.

CPD-100ES/100EST and CPD-200ES/200EST

No.	Resolution (dots × lines)	Horizontal Frequency	Vertical Frequency	Graphics Mode
1	640 × 480	31.5 kHz	60 Hz	VGA Graphic 1)
2	640 × 480	43.3 kHz	85 Hz	VESA 2)
3	800 × 600	46.9 kHz	75 Hz	VESA 2)
4	800 × 600	53.7 kHz	85 Hz	VESA 2)
5	832 × 624	49.7 kHz	75 Hz	Macintosh 16" Color 2)
6	1024 × 768	60.0 kHz	75 Hz	VESA 2)
7	1024 × 768	68.7 kHz	85 Hz	VESA 2)
8	1280 × 1024	64.0 kHz	60 Hz	VESA 2)

For the customers using the Windows®4)95
Install the new model information of the Sony computer display from "Windows95 Monitor Information Disk" into your PC. (To install the file, refer to the attached "About the Windows95 Monitor Information Disk/File".)

This monitor complies with "VESA DDC", the standards of Plug&Play. If your PC/graphic board complies with DDC, select "Plug and Play Monitor (VESA DDC)" or this monitor's model name (CPD-100ES/100EST or CPD-200ES/200EST) as "Monitor type" from "Control Panel" on Windows95. Some PC/graphic boards do not comply with DDC. Even if they comply with DDC, they may have some problems on connecting to this monitor. In this case, select this monitor's model name (CPD-100ES/100EST or CPD-200ES/200EST) as "Monitor type" on Windows95.

Recommended horizontal timing conditions
Horizontal sync width should be: >1.0 μsec.
Horizontal blanking width should be: >3.6 μsec. (Multiscan 100ES)/
>3.0 μsec. (Multiscan 200ES).
Vertical sync width should be: < 560 μsec.

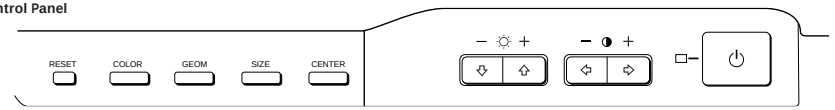
Note
CPD-100ES/100EST and CPD-200ES/200EST does not apply to Macintosh 21" color mode.

Adjustments

When one of the preset-type signals is input, no picture adjustment is necessary.
You can, however, adjust the picture to your preferences by following the procedure described below.
You can adjust all items on the OSD (On Screen Display).

- Before adjusting the items, turn on the unit and feed the video signal from the connected computer/work station.
- Adjustments will be stored automatically.

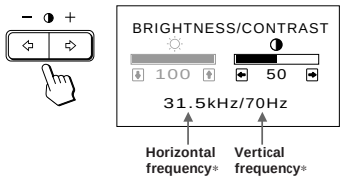
Control Panel



Adjusting the Picture Contrast

The adjustment data becomes the common setting for all input signals.

1 Press the ◑ ⬅/➡ button.
The "BRIGHTNESS/CONTRAST" OSD appears.



2 Press the ◑ ⬅/➡ buttons to adjust picture contrast.
➡ . . . for more contrast
⬅ . . . for less contrast

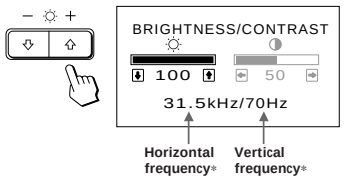
The "BRIGHTNESS/CONTRAST" OSD disappears 3 seconds after you release the buttons.

To reset, press the RESET button while the OSD is on.

Adjusting the Picture Brightness

The adjustment data becomes the common setting for all input signals.

1 Press the ☼ ⬆/⬇ button.
The "BRIGHTNESS/CONTRAST" OSD appears.



2 Press the ☼ ⬆/⬇ buttons to adjust picture brightness.
⬇ . . . for less brightness
⬆ . . . for more brightness

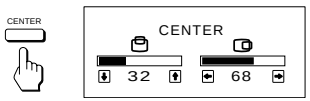
The "BRIGHTNESS/CONTRAST" OSD disappears 3 seconds after you release the buttons.

To reset, press the RESET button while the OSD is on.

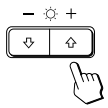
Adjusting the Picture Centering

The adjustment data becomes the individual setting for each input signal received.

1 Press the CENTER button.
The "CENTER" OSD appears.

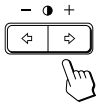


2 **For vertical adjustment**
Press the ☼ ⬆/⬇ buttons.



⬆ . . . to move up
⬇ . . . to move down

For horizontal adjustment
Press the ◑ ⬅/➡ buttons.



⬅ . . . to move left
➡ . . . to move right

To erase the "CENTER" OSD, press the CENTER button again.
The "CENTER" OSD automatically disappears 10 seconds after you release the buttons.

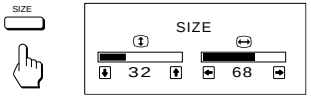
To reset, press the RESET button while the OSD is on.

* The horizontal and vertical frequencies for each input signal received appear on the "BRIGHTNESS/CONTRAST" OSD.

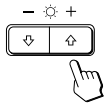
Adjusting the Picture Size

The adjustment data becomes the individual setting for each input signal received.

1 Press the SIZE button.
The "SIZE" OSD appears.

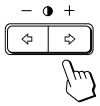


2 **For vertical adjustment**
Press the ☼ ↑/↓ buttons.



↑ . . . to enlarge
↓ . . . to diminish

For horizontal adjustment
Press the ◑ ←/→ buttons.



← . . . to diminish
→ . . . to enlarge

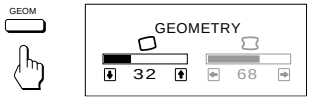
To erase the "SIZE" OSD, press the SIZE button again.
The "SIZE" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press the RESET button while the OSD is on.

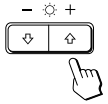
Adjusting the Picture Rotation

The adjustment data becomes the common setting for all input signals.

1 Press the GEOM button.
The "GEOMETRY" OSD appears.



2 Press the ☼ ↑/↓ buttons.
↑ . . .to rotate clockwise
↓ . . . to rotate counterclockwise



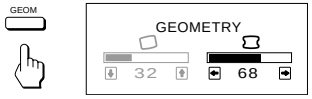
To erase the "GEOMETRY" OSD, press the GEOM button again.
The "GEOMETRY" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press the RESET button while the OSD is on.

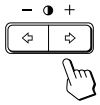
Adjusting the Pincushion

The adjustment data becomes the individual setting for each input signal received.

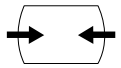
1 Press the GEOM button.
The "GEOMETRY" OSD appears.



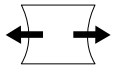
2 Press the ◑ ←/→ buttons.



← . . . to diminish the picture sides



→ . . . to expand the picture sides



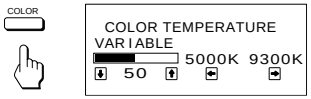
To erase the "GEOMETRY" OSD, press the GEOM button again.
The "GEOMETRY" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press the RESET button while the OSD is on.

Setting the Color Temperature

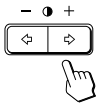
The selected color temperature becomes the common setting for all input signals.

1 Press the COLOR button.
The "COLOR TEMPERATURE" OSD appears.



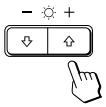
2 Adjust with the ◑ ←/→ and ☼ ↑/↓ buttons.

To select 5000K or 9300K
Press the ◑ ←/→ buttons.
The selected color temperature is indicated in yellow.



← . . . to select 5000K
→ . . . to select 9300K

To obtain the desired color temperature between 5000K and 9300K
Press the ☼ ↑/↓ buttons.



↑ . . . for higher temperature
↓ . . . for lower temperature

Your most recent adjusted color temperature will be recalled by pressing the ☼ ↑/↓ button.

To erase the "COLOR TEMPERATURE" OSD, press the COLOR button again.
The "COLOR TEMPERATURE" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press the RESET button while the OSD is on.

Resetting the Adjustment Data to Factory-preset Levels

To reset an adjustment item

Press the button of the adjustment item you want to reset, and then press the RESET button before the OSD (On Screen Display) disappears.

To reset all adjustment data at once (for the received signal)

Press the RESET button when no OSD is shown.

To reset all adjustment data to factory-preset levels

Press and hold the RESET button for more than 2 seconds.
All adjustment data are reset to factory-preset levels.

Entering New Timings

When using a video mode that is not one of the factory preset modes, some fine tuning may be required to optimize the display to your preferences. Simply adjust the monitor according to the preceding adjustment instructions. The adjustments will be stored automatically and recalled whenever that mode is used.
A total of 8 user-defined modes can be stored in memory. If the 9th mode is entered, it will replace the first.

Power Saving Function

This monitor meets the power saving guidelines set by the International ENERGY STAR Program as well as the more stringent TCO92 803299 (NUTEK) guidelines. It is capable of reduced power consumption when used with a computer equipped with Display Power Management Signaling (DPMS). By sensing the absence of the sync signal coming from the computer, it will reduce the power consumption as follows:

CAUTION: The Power Saving function will automatically put the monitor into Active-off state if the power switch is turned on without any video signal input. Once the horizontal and vertical syncs are sensed, the monitor will automatically return to its Normal operation state.

	State	Power consumption	Required resumption time	⏻ POWER indicator
1	Normal operation	≤ 110 W	—	green on
2	Stand-by (1st step of power saving)	≤ 15 W	approx. 3 sec.	Orange and green flashes alternately
3	Suspend (2nd step of power saving)	≤ 15 W	approx. 3 sec.	Orange and green flashes alternately
4	Active-off (3rd step of power saving)	≤ 8 W	approx. 10 sec.	Orange on
5	Power-off	0 W	—	off

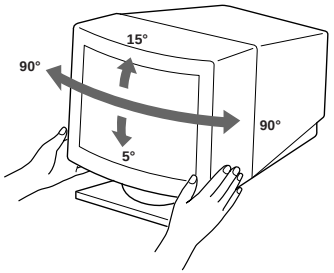
Plug and Play

This monitor complies with DDC™1 and DDC2B, which are the Display Data Channel (DDC) standards of VESA.
When a DDC1 host system is connected, the monitor synchronizes with the V. CLK in accordance with the VESA standards and outputs the EDID (Extended Display Identification Data) to the data line.
When a DDC2B host system is connected, the monitor automatically switches to the DDC2B communication.

DDC™ is a trademark of the Video Electronics Standard Association.

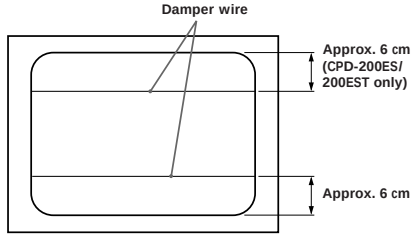
Use of the Tilt-Swivel

With the tilt-swivel, this unit can be adjusted to be viewed at your desired angle within 180° horizontally and 20° vertically. To turn the unit vertically and horizontally, hold it at its bottom with both hands.



Damper Wire

Using a white background, very thin horizontal stripes on the screen are visible as shown on the illustration. These stripes are damper wires. These wires are attached to the aperture grille inside the Trinitron tube and are there to dampen vibrations of the aperture grille in order to prevent them from influencing the picture quality.



Troubleshooting

This section may help you isolate a problem and as a result, eliminate the need to contact technical support, allowing continued productivity.

No picture

➡ If the ⏻ POWER indicator is not lit.
— Check that the power cord is properly connected.
— Check that the ⏻ POWER switch is in the "ON" position.

➡ If the ⏻ POWER indicator is flashing in green and orange alternately.
— Check that your computer power switch is in the "ON" position.
— The monitor will recover when you press any key on the keyboard of the computer.
— Check that the video cable is properly connected.
— Ensure that no pins are bent or pushed in the HD15 connector of the cable.
— Check that the video card is seated completely in a proper bus slot.
— Check that the video sync signal is within that specified for the monitor.
— If using a Macintosh system, check that a proper HD15 - D15 adapter is provided to work correctly with your Macintosh.
— The monitor has a self-diagnose function. After disconnecting the video signal cable from the computer, turn on the ⏻ POWER switch of the monitor. Press and hold the "+" side of the ◑ button for 2 seconds, then color bars will appear. The monitor is operating normally if the red, green, and blue color bars appear. Contact the maker of the computer to which the monitor is connected.

➡ If the ⏻ POWER indicator is flashing.
— There is a potential monitor failure. Contact your dealer.

If the message of "OUT OF SCAN RANGE" appears on the screen

➡ Check that the video sync signal is specified for the monitor.

Picture is scrambled

➡ Check your graphics board manual for the proper monitor setting on your Multiscan 100ES/ 200ES.

➡ Check this manual and confirm that the graphic mode and the frequency at which you are trying to operate is supported. Even within the proper range some video boards may have a sync pulse that is too narrow for the monitor to sync correctly.

Color is not uniform

➡ If the monitor is close to any potential sources of magnetic fields such as a speaker, or you turn the monitor while the ⏻ POWER switch is in the "ON" position, color may not be uniform. Trip the ⏻ POWER switch once to activate the Auto-degauss cycle*.

Picture is flickering

➡ If the refresh rate is not appropriate, the picture may flicker. Set the refresh rate of the non-interlace mode as high as possible on the computer. For detailes on how to set the refresh rate, consult the dealer of your computer or video board.

Screen image is not centered or sized properly

➡ Adjust the "CENTER," "SIZE," or "GEOMETRY" on the OSD (pages 5, 6).

➡ Some video modes do not fill the screen to the edge of the monitor. There is no single answer to solve the problem. There is a tendency to have this problem on higher refresh timings and Macintosh video timings.

Picture is fuzzy

➡ Adjust the "CONTRAST" and "BRIGHTNESS" on the OSD (page 5). We have come across several brands of SVGA boards that have an excessive video output level which creates a fuzzy picture at max contrast.

➡ Trip the ⏻ POWER switch once to activate the Auto-degauss cycle*.

Picture bounces or has wavy oscillations

➡ Isolate and eliminate any potential sources of electric or magnetic fields. Common causes for this symptom are electric fans, fluorescent lighting, laser printers, and so on.

➡ If you have another monitor close to this monitor, increase the distance between them to reduce the interference.

➡ Try plugging the monitor into a different AC outlet, preferably on a different circuit.

➡ Try the monitor on a completely different computer in a different room.

Picture appears to be ghosting

➡ Eliminate the use of video cable extension cables and/or video switch boxes if this symptom occurs. Excessive cable length or weak connections can produce this symptom.

A fine horizontal line (wire) is visible

➡ This wire stabilizes the vertically striped Aperture Grille (page 8). This Aperture Grille allows more light to pass through to the screen giving the Trinitron CRT more color and brightness.

Wavy or elliptical (moire) pattern is visible

➡ Due to the relationship between resolution, monitor AG pitch and the pitch of some image patterns, certain screen backgrounds, especially gray, sometimes show moire. This can only be eliminated by changing your desktop pattern.

Just after turning the monitor on, a "boon" noise is heard

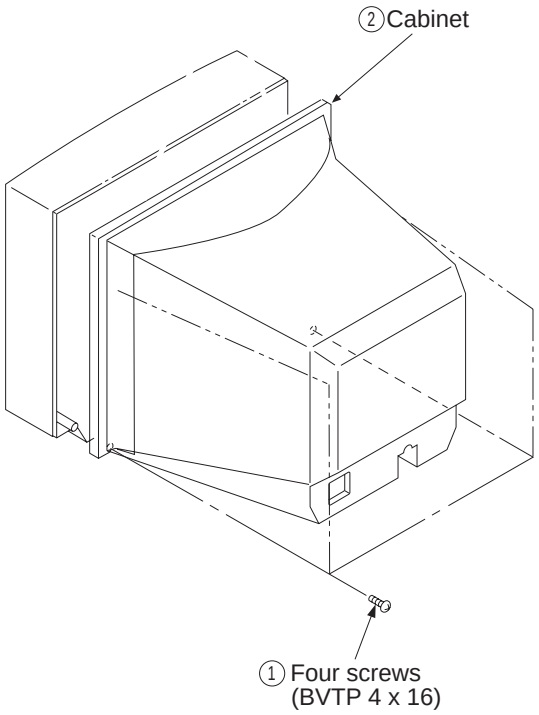
➡ Just after turning the monitor on, a noise may be heard for about 3 seconds.
This noise is not failure, it is caused by the Auto-degauss cycle*.

* The Auto-degauss function demagnetizes the metal frame of the CRT to obtain a neutral field for uniform color reproduction. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.

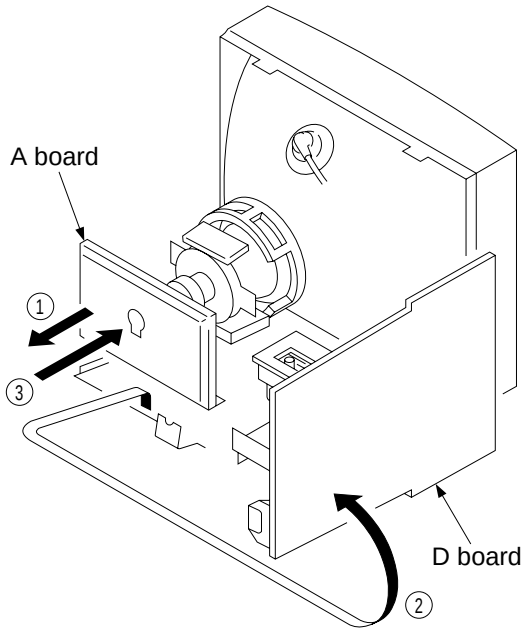
- If the problem persists, call your authorized Sony dealer from a location near your monitor.
- Note the model name and the serial number of your monitor. Also note the make and name of your computer and video board.

SECTION 2
DISASSEMBLY

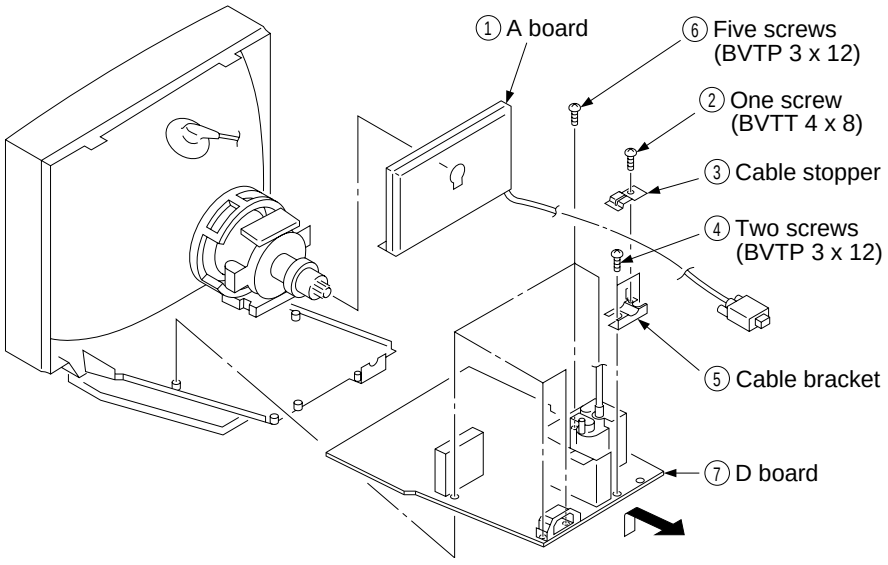
2-1. CABINET REMOVAL



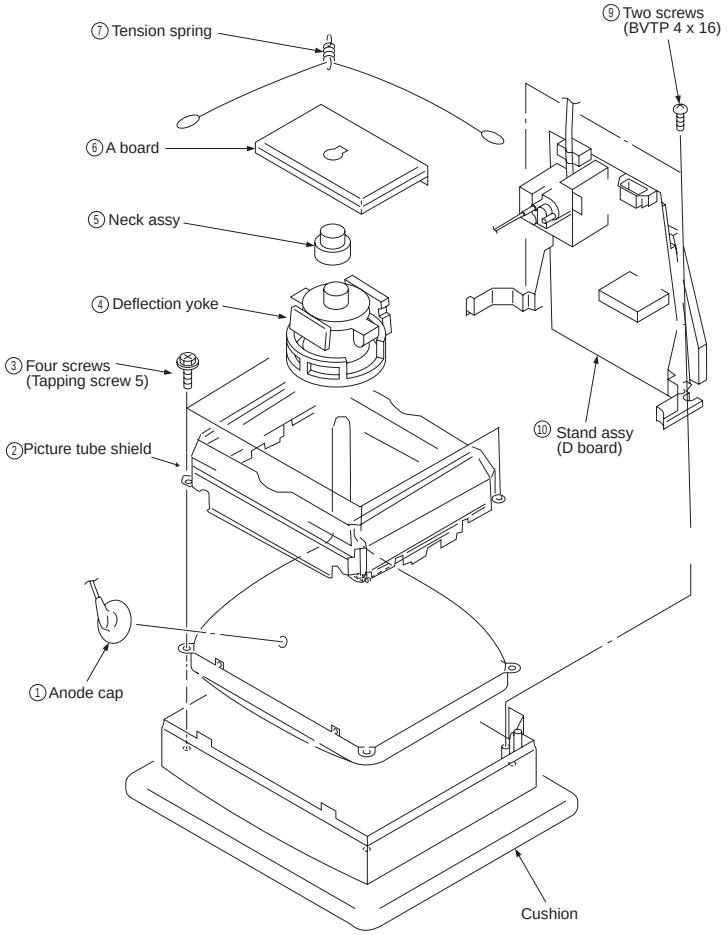
2-2. SERVICE POSITION



2-3. D BOARD REMOVAL



2-4. PICTURE TUBE

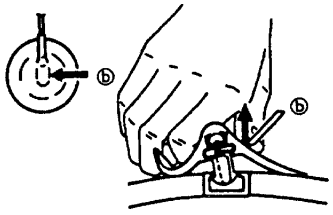


• REMOVAL OF THE ANODE-CAP

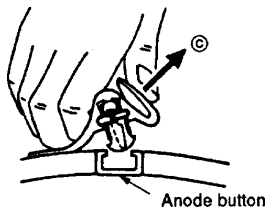
NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

• REMOVAL PROCEDURES

① Turn up one side of the rubber cap in the direction indicated by arrow ⓐ.



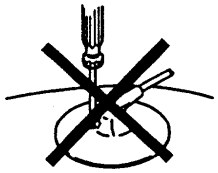
② Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ.

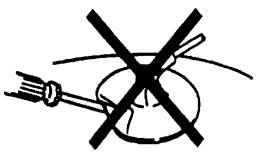


③ When one side of the rubber cap separates from the anode button, the anode-cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

① Do not use sharp objects which may cause damage to the surface of the anode-cap.
② Do not squeeze the rubber covering too hard to avoid damaging the anode-cap. A material fitting called a shatter-hook terminal is built into the rubber.
③ Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.





SECTION 3
SAFETY RELATED ADJUSTMENT

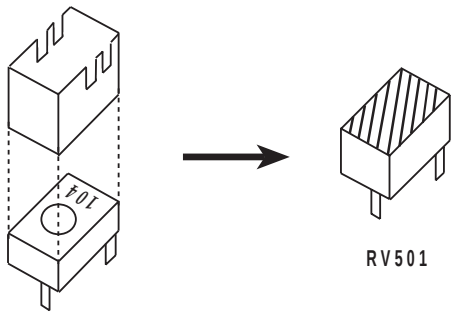
● **When replacing parts shown in the table below, the following operational checks must be performed as a safety precaution against X-rays emissions from the unit.**

D - BOARD
Part Replaced (⧓)
RV501
Part Replaced (◪)
IC801, IC901, IC904, FBT T501, D511, D515, D596, R532, R533, R534, R535, R538, R539, R540, R541, R542, R543, R544, R545, R807, R822, R823, R824, R939, R996, RV501, C509, C515, C516, C517, C519, C531, C542, C548, C549, C802, C814, C815, C904, C910, R598, R599

※ Allow the unit to warm up for one minute prior to checking the following conditions:

a) HV Regulator Check

1) Input white cross hatch signal. (fH = 64 kHz)
2) Set H.Size data to minimum.
3) Cut off Screen VR (G2).
4) Input voltage: 120 ± 2 VAC
5) Confirm that the voltage is within the voltage range shown below:
   Standard voltage: 25.0KV ± 0.2KV
6) When replacing components identified by ◪, make sure to recheck the High Voltage.
7) Verify the High Voltage as shown above (25.0KV ± 0.2KV) is within specification. If not, set H. SIZE data at minimum (-127) and then adjust RV501 on "D" Board.
8) After adjusting the High Voltage within specification, put the RV cover on RV501 as shown below and apply sufficient amount of RTV around RV501.



b) HV Hold-Down Check

1) Using an external DC Power supply, apply the voltage shown below between cathode of D511 on "D" Board and GND, and confirm that the HV Hold-Down circuit works. (Raster disappears)
   Standard voltage: 35.00 + 0.00 VDC
   - 0.10

Check Condition

- Input voltage : 120 ± 2 VAC
- Input signal : Any pattern (fH = 64 kHz)
- Controls : CONT → Maximum
  : BRT → Center

c) Beam Protector Check

1) Using an external DC power supply, apply the voltage 7.00 + 0.05 VDC between pin (11) of FBT (T501) and GND, and confirm that the voltage of both ends C519 is with in the voltage range shown below.
   Standard voltage: Less than 3.26 VDC

Check Condition

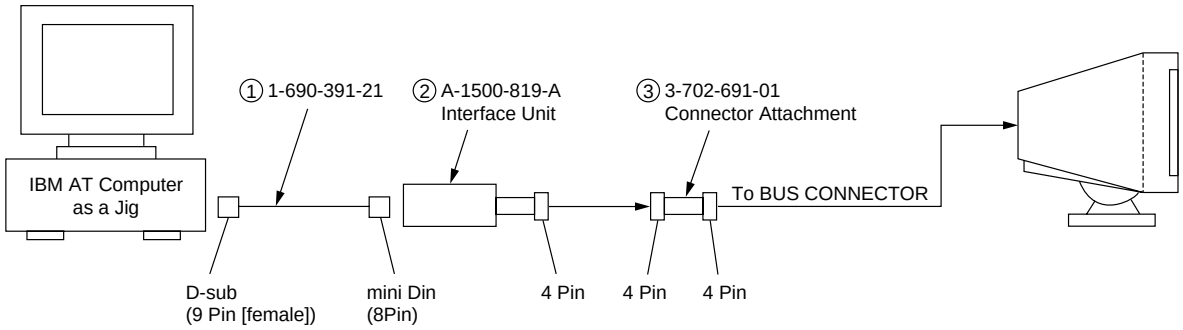
- Input voltage : 120 ± 2 VAC
- Input signal : Any pattern (fH = 64 kHz)
- Controls : CONT → Maximum
  : BRT → Center

d) +B MAX. Check

1) Input white cross hatch (fH = 64 kHz) signal.
2) Set CONT and BRT to Maximum
3) Input voltage: 120 ± 2 VAC
   Note: Use NF power supply or make sure that distortion factor is 3% or less.
4) Confirm that the voltage is within the voltage range shown below.
   Standard voltage: 151.0 ± 4.25 VDC
   Measurement Point: CN505 Pin 1 and GND

SECTION 4
ADJUSTMENTS

Connect the communication cable of the connector located on the D board on the monitor. Run the service software and then follow the instructions.



*The parts above ((①~③) are necessary for DAS adjustment.

※ Allow a 30 minute warm-up period prior to making the following adjustments.

● **Landing Rough Adjustment**

1. Enter the full white signal.
2. Adjust the contrast to the maximum.
3. Make the screen monogreen.
4. Reverse the DY, and adjust coarsely the purity magnet so that a green raster positions in the center of screen.
5. Moving the DY forward, adjust so that an entire screen becomes monogreen.
6. Adjust the tilt of DY, and fix lightly with a clamp.

● **Landing Fine Adjustment**

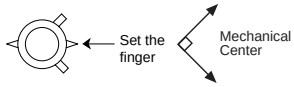
1. Place the set in the Helmholtz coil.
2. Enter a green signal only.
3. Degauss the entire screen with hand-degausser. Then auto degauss it.
4. Attach a wobbling coil to the specified position of CRT neck.
5. Attach a landing adjuster sensor on the CRT.
6. Using a landing checker, adjust the DY position, purity on DY, tilt of DY.
7. Clamp the DY screw.
   Clamping torque: 22 ± 2 kgcm (2.2± 0.2 Nm)

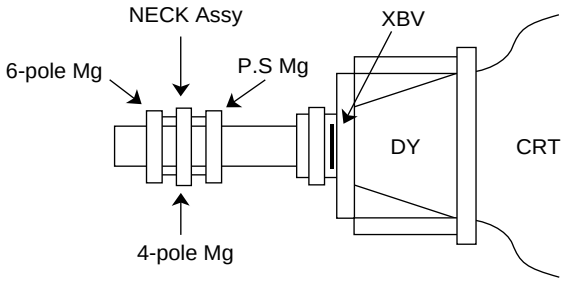
● **Convergence Rough Adjustment**

1. Enter the white crosshatch signal.
2. Adjust roughly the horizontal and vertical convergence at four-pole magnet.
3. Adjust roughly HMC and VMC at six-pole magnet.

● **Convergence Fine Adjustment**

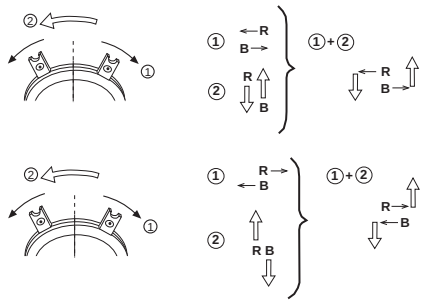
Set DY four-pole magnet to mechanical center before adjustment.
This should be prime mode.





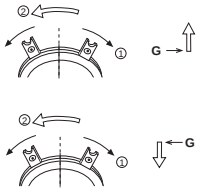
1. Receive R.B. crosshatch.
2. Adjust H. STAT and V. STAT at four-pole magnet.

< 4 Pole Magnet>



3. Receive White cross-hatch.
4. Adjust HMC and VMC at six-pole magnet.

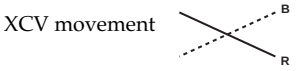
< 6 Pole Magnet>



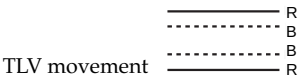
5. Display R and B cross hatch patterns.
6. Adjust H STAT and V STAT with 4-pole magnet.
7. Display white cross hatch patterns.
8. Adjust HMC and VMC with 6-pole magnet.
9. Display R and B cross hatch patterns.
10. Adjust XCV and XCV roller.
11. Adjust XBV and XBV reactor.
12. Adjust V.STAT with 4-pole magnet.

Repeat steps 7 to 12 above and make R, G, B of both vertical and horizontal lines to be overlaid at the center of the x-axis.

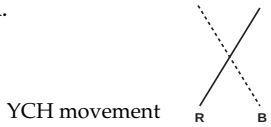
13. Adjust H.TILT with TLH Corrector.
14. Adjust XCV with XCV core.



15. Adjust V.TILT with TLV VR.



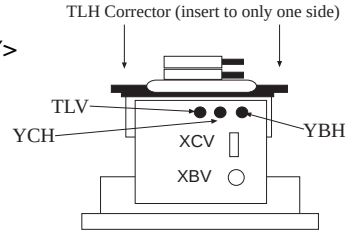
16. Adjust Y.CROSS with YCH VR.



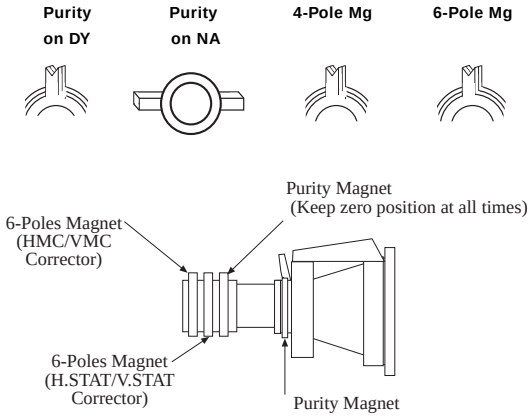
17. Adjust YBH with YBH VR.

18. Paint lock the four-pole magnet ,six-pole magnet, XBV reactor, XCV corrector and TLH corrector handle.

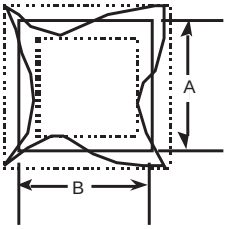
<VR Adjustment on DY>



Zero Position NECK Asssembly

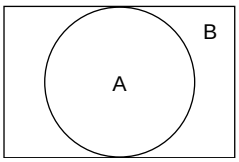


● Vertical and Horizontal Position and Size Specification



A	B
234mm	312mm

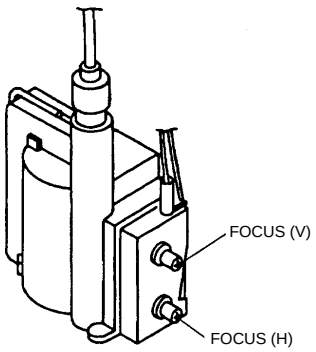
● Convergence Specification



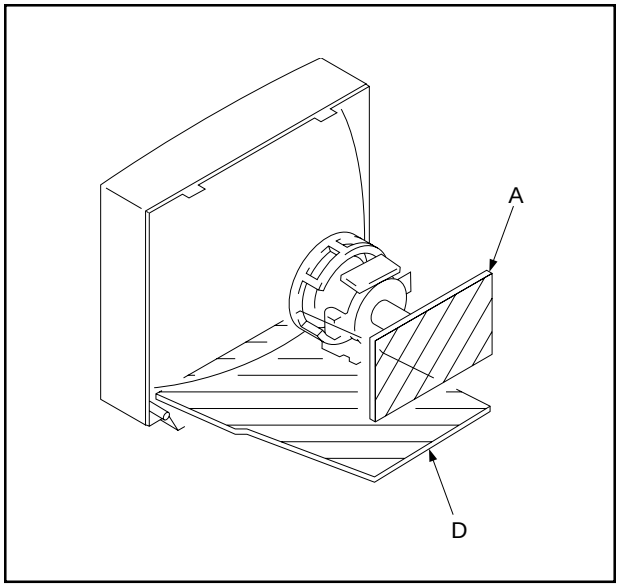
A ≦ **0.24mm**
B ≦ **0.28mm**

● Focus Adjustment

Adjust focus (V) and focus (H) for optimum focus.



5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP: 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- The components identified by ⧓ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments by using RV501 (⧓) as indicated. (See page 10)

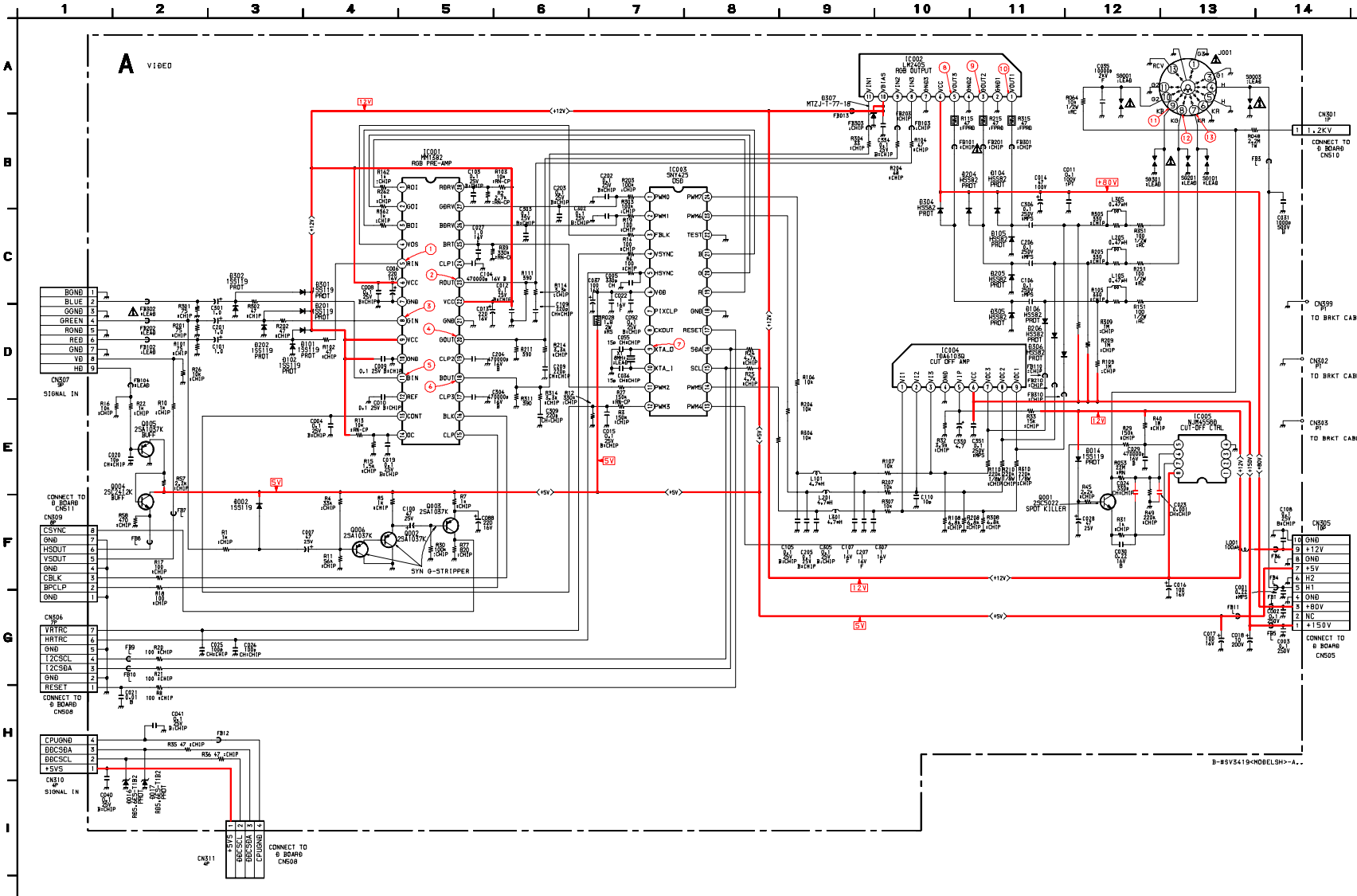
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

- When replacing parts shown in the table below, be sure to perform the safety related adjustment.

D - BOARD
Part Replaced (⧓)
RV501
Part Replaced (◪)
IC801, IC901, IC904, FBT T501, D511, D515, D596, R532, R533, R534, R535, R538, R539, R540, R541, R542, R543, R544, R545, R807, R822, R823, R824, R939, R996, RV501, C509, C515, C516, C517, C519, C542, C548, C549, C802, C814, C815, C904, C910, R598, R599, C531

- All voltages are in Volts.
- Readings are taken with a 10 MΩ digital multimeter
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- * : Can not be measured.
- Circled numbers are waveform references.
- ——— : B +bus.
- — — — : B - bus.


A VIDEO
IC001 M51392 RGB PRE-AMP
IC002 LM2405 RGB OUTPUT
IC003 SN7425 OSD
IC004 TDA1030D CUT OFF AMP
IC005 NJM2588 CUT-OFF CTRL
Q001 2SC5022 SPOT KILLER
Q002 2SA1037K
Q003 2SA1037K
Q004 2SC2412K
Q005 2SA1037K
Q006 2SA1037K
SYN G-STRIPPER
CN507 SIGNAL IN
CN509 CONNECT TO B BOARD CN511
CN506 CONNECT TO B BOARD CN508
CN510 SIGNAL IN
CN511 CONNECT TO B BOARD CN508
CN501 CONNECT TO B BOARD CN510
CN504 TO BRKT CABLE
CN502 TO BRKT CABLE
CN503 TO BRKT CABLE
CN505 CONNECT TO B BOARD CN505
+12V
+8V
+5V
-12V
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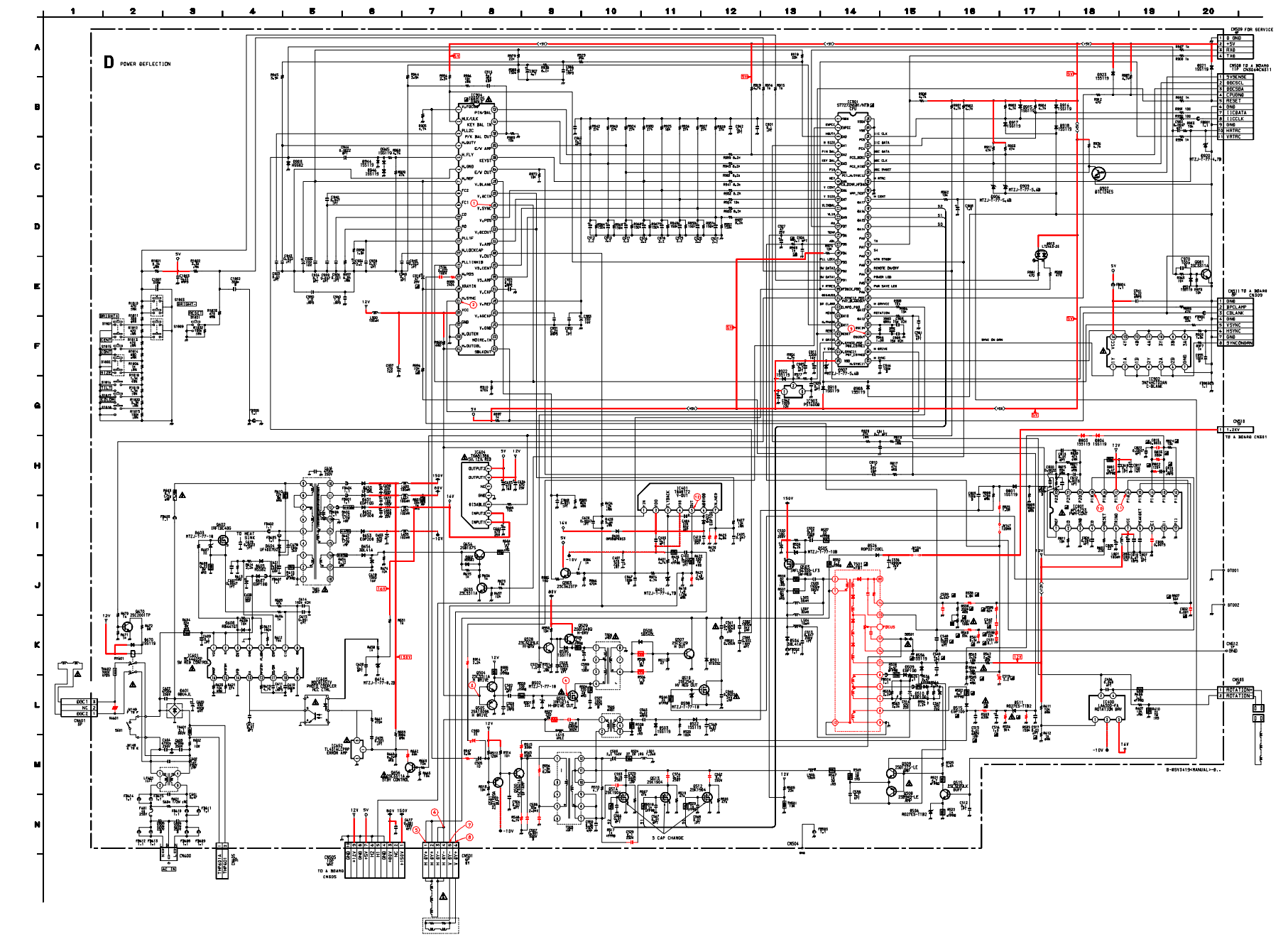
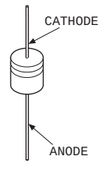

D
POWER DEFLECTION
CN509 FOR SERVICE
CN510 TO A BOARD CN504
CN511 TO A BOARD CN309
CN513 TO A BOARD CN501
CN512
CN503
CN504
CN600
CN601
CN605 TO A BOARD CN505
5 CAP CHANGE
B-RSV341X<MANUAL>-0..

5-4. SEMICONDUCTORS

RB441QT-77
RD5.6ES-B2
RD8.2ES-B2
RD10ES-B2
RD18ES-BS
RD27ES-B2
1SS119-25TD
UZ-4.7BSC



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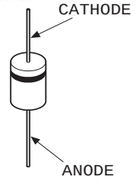
EGP20GPKG23
GP08D



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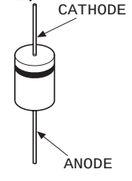
RGP02-20EL-6394
3DL41A (LC6-15)
HSS 82



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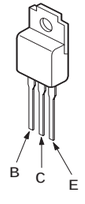

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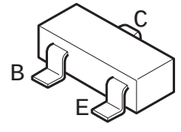

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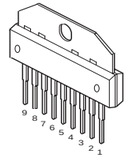

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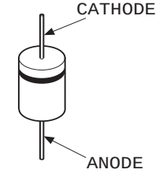

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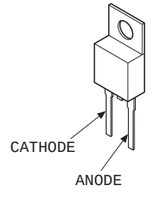

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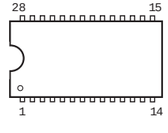

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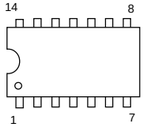

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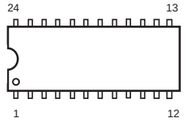

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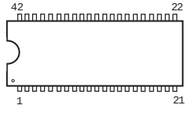

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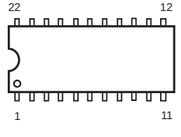

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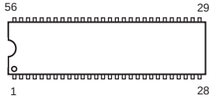

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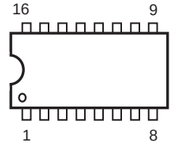

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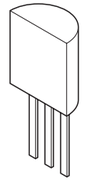

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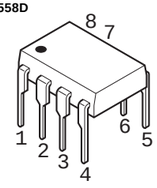

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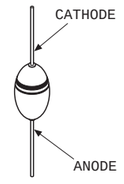

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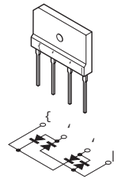

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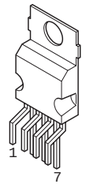

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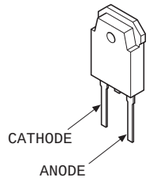

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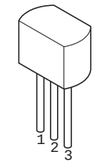
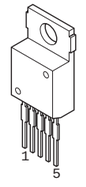


LA 6500-FA



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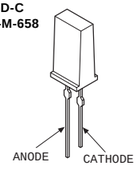
SG232D-658
SEL1922D-C
SY432W-M-658



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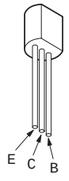

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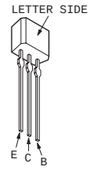

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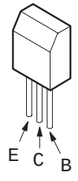

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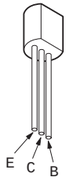

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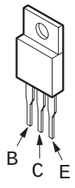
2SB1565F



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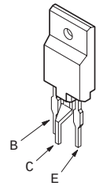

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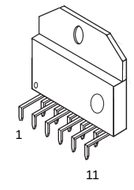

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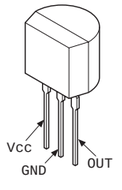

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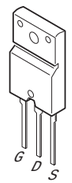

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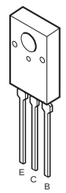

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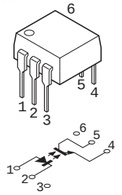

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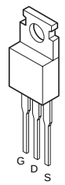

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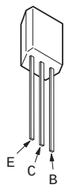

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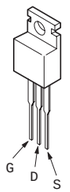

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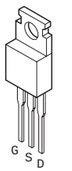

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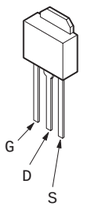


SECTION 6
EXPLODED VIEWS

• Items with no part number and no description are not stocked because they are seldom required for routine service.

• The component parts of an assembly are indicated by the reference numbers in the remarks column.

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note:

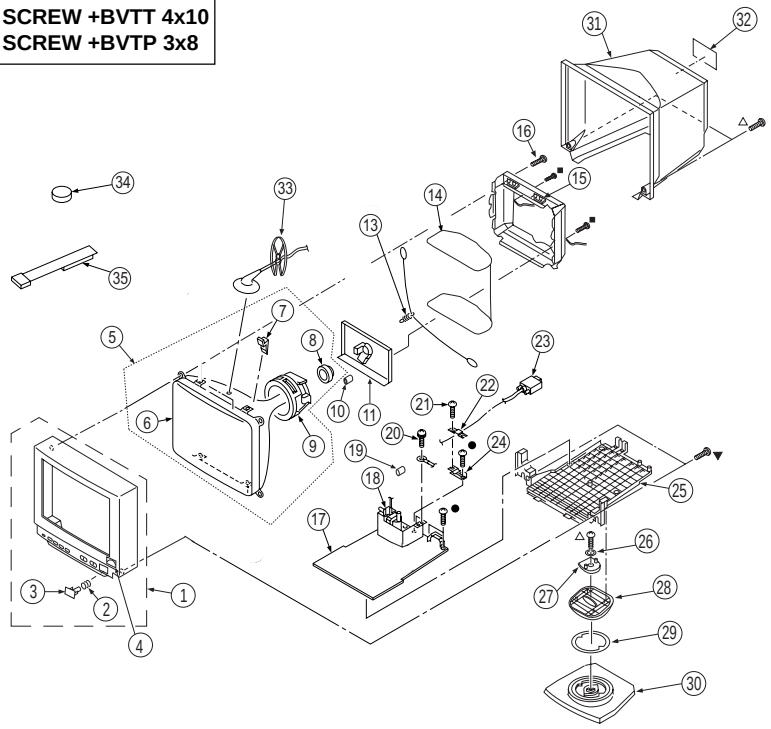
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

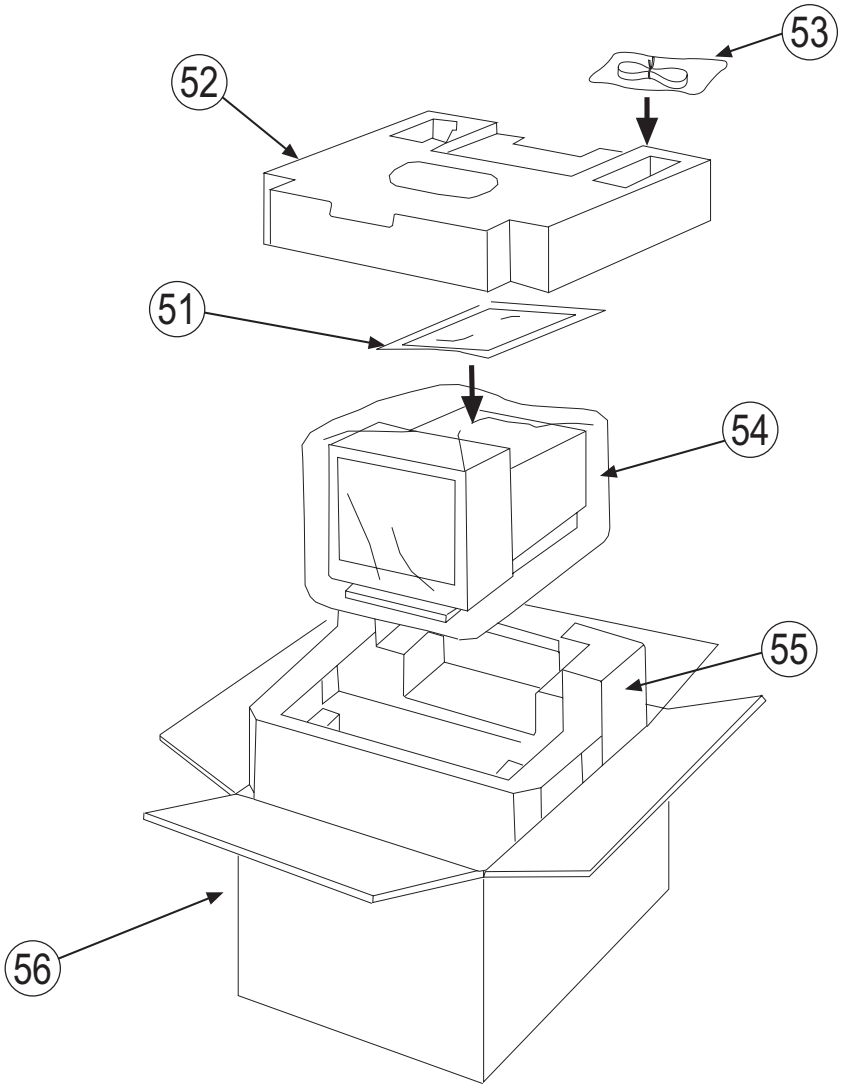
6-1. CHASSIS

●	7-685-648-79	SCREW +BVTP 3x12
△	7-685-663-71	SCREW +BVTP 4x16
▼	7-685-882-09	SCREW +BVTT 4x10
■	7-685-646-79	SCREW +BVTP 3x8



REF.NO.	PART NO.	DESCRIPTION	REMARK
1 *	X-4034-876-1	BEZEL ASSY	2-3
2	4-060-596-01	SPRING, COMPRESSION	
3	4-060-598-01	BUTTON, POWER	
4 *	4-060-152-01	LABEL, ENERGY STAR	
5 ⚠	8-738-728-82	ITC ASSY (17FRFM-RS3) (CPD-200ES SH)	6-9
5 ⚠	8-738-733-82	ITC ASSY (17FRFM-R2) (CPD-200ES EQ)	6-9
6 ⚠	8-738-728-05	CRT, 17FRFM (CPD-200ES SH)	
6 ⚠	8-738-733-05	CRT, 17FRFM (CPD-200ES EQ)	
7	4-060-166-01	SPACER, DY	
8 ⚠	1-452-923-21	NECK ASSY (NA-2914)	
9 ⚠	8-451-487-11	DY Y17FRG-M	
10	1-500-386-11	FILTER CLAMP (FERRITE CORE)	
11 *	A-1298-231-A	A BOARD, COMPLETE	
13	4-060-603-01	SPRING, TENSION	
14 ⚠	1-416-282-21	COIL, DEMAGNETIZATION	
15 *	4-060-606-01	SPACER, DGC	
16	4-365-808-01	SCREW (5), TAPPING	
17 *	A-1346-658-A	D BOARD, COMPLETE	
18 ⚠	1-453-240-21	TRANSFORMER ASSY, FLYBACK(NX-4103//JIE4)	
19	1-543-653-11	CORE ASSY,BEAD (DIVISION TYPE)	
20	4-389-025-01	SCREW (M4x8)(EXT.TOOTHWASHER)	
21	7-685-659-71	SCREW + BVTT 4x8 (S)	
22 *	4-060-151-01	STOPPER, CABLE	
23	1-775-535-11	CABLE ASSY VIDEO (15P D-SUB)	
24 *	4-060-150-01	BRACKET, CABLE	
25 *	4-060-612-01	COVER, BOTTOM	
26 *	4-060-178-01	HOLDER, STAND	
27	4-060-183-01	STOPPER (A)	
28 *	4-060-613-01	SLIDER	
29 *	4-060-180-01	RING, TILT SWIVEL	
30 *	X-4034-879-1	STAND BASE, ASSY	
31	X-4034-877-1	CABINET ASSY	
32 *	4-060-602-11	LABEL, INFORMATION (CPD-200ES SH)	
32 *	4-060-602-01	LABEL, INFORMATION (CPD-200ES EQ)	
33	4-060-155-01	HOLDER, HV CABLE	
34	1-452-032-00	MAGNET, DISC	
35 *	X-4034-792-1	PERMALLOY ASSY, STAND	

6-2. PACKING MATERIALS



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	3-860-654-01	MANUAL, INSTRUCTION	
52 *	4-060-618-01	CUSHION, RIGHT	
53 ⚠	1-558-481-11	CORD SET, POWER (CPD-200ES SH)	
53 ⚠	1-765-719-11	CORD SET, POWER (CPD-200ES EQ)	
54 *	4-060-620-01	BAG, POLYETHYLENE	
55 *	4-060-617-01	CUSHION, LEFT	
56 *	4-060-621-01	INDIVIDUAL CARTON (CPD-200ES SH)	
56 *	4-061-139-01	INDIVIDUAL CARTON (CPD-200ES EQ)	

SECTION 7
ELECTRICAL PARTS LIST

A

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF = µF

INDUCTORS
- UH = µH, MMH = mH

When indicating parts by reference number, please include the board name.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1298-231-A	A BOARD, COMPLETE			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
		CAPACITOR			
C001	1-136-169-00	FILM	0.22MF	5%	50V
C002	1-137-528-11	FILM	0.1MF	10%	250V
C003	1-137-528-11	FILM	0.1MF	10%	250V
C004	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C005	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C006	1-126-934-11	ELECT	220MF	20%	16V
C007	1-104-664-11	ELECT	47MF	20%	25V
C008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C009	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C010	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C011	1-106-220-00	MYLAR	0.1MF	10%	100V
C012	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C013	1-126-934-11	ELECT	220MF	20%	16V
C014	1-107-932-11	ELECT	47MF	20%	100V
C015	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C016	1-126-933-11	ELECT	100MF	20%	16V
C017	1-126-933-11	ELECT	100MF	20%	16V
C018	1-107-746-11	ELECT	10MF	20%	200V
C019	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C020	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C021	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C022	1-164-346-11	CERAMIC CHIP	1MF		16V
C023	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C024	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C025	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C026	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C027	1-164-346-11	CERAMIC CHIP	1MF		16V
C028	1-107-888-11	ELECT	47MF	20%	25V
C029	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C030	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C031	1-162-318-11	CERAMIC	0.001MF	10%	500V
C035	1-115-349-51	CERAMIC	0.01MF		2KV
C036	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C037	1-126-933-11	ELECT	100MF	20%	16V
C040	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C041	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C055	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C088	1-126-934-11	ELECT	220MF	20%	16V
C092	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C100	1-104-664-11	ELECT	47MF	20%	25V
C101	1-126-960-11	ELECT	1MF	20%	50V
C103	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C104	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C106	1-137-528-11	FILM	0.1MF	10%	250V
C107	1-164-346-11	CERAMIC CHIP	1MF		16V
C108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C109	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C110	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C201	1-126-960-11	ELECT	1MF	20%	50V
C202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C203	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C204	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C205	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C206	1-137-528-11	FILM	0.1MF	10%	250V
C207	1-164-346-11	CERAMIC CHIP	1MF		16V
C209	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C301	1-126-960-11	ELECT	1MF	20%	50V
C302	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C303	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C304	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C305	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C306	1-137-528-11	FILM	0.1MF	10%	250V

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Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C307	1-164-346-11	CERAMIC CHIP	1MF		16V
C309	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C330	1-107-905-11	ELECT	4.7MF	20%	50V
C334	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C351	1-137-528-11	FILM	0.1MF	10%	250V

CONNECTOR

CN301	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN302	1-695-915-11	TAB (CONTACT)
CN303	1-695-915-11	TAB (CONTACT)
CN305	1-564-513-11	PLUG, CONNECTOR 10P
CN306 *	1-564-510-11	PLUG, CONNECTOR 7P
CN307 *	1-564-512-11	PLUG, CONNECTOR 9P
CN309	1-564-511-11	PLUG, CONNECTOR 8P
CN310 *	1-564-507-11	PLUG, CONNECTOR 4P
CN311 *	1-564-507-11	PLUG, CONNECTOR 4P
CN399	1-695-915-11	TAB (CONTACT)

DIODE

D002	8-719-911-19	DIODE 1SS119-25
D014	8-719-911-19	DIODE 1SS119-25
D016	8-719-109-89	DIODE RD5.6ESB2
D017	8-719-109-89	DIODE RD5.6ESB2
D101	8-719-911-19	DIODE 1SS119-25
D102	8-719-911-19	DIODE 1SS119-25
D104	8-719-970-83	DIODE HSS82
D105	8-719-970-83	DIODE HSS82
D106	8-719-970-83	DIODE HSS82
D201	8-719-911-19	DIODE 1SS119-25
D202	8-719-911-19	DIODE 1SS119-25
D204	8-719-970-83	DIODE HSS82
D205	8-719-970-83	DIODE HSS82
D206	8-719-970-83	DIODE HSS82
D301	8-719-911-19	DIODE 1SS119-25
D302	8-719-911-19	DIODE 1SS119-25
D304	8-719-970-83	DIODE HSS82
D305	8-719-970-83	DIODE HSS82
D306	8-719-970-83	DIODE HSS82
D307	8-719-110-49	DIODE RD18ESB2

FERRITE BEAD

FB001	1-412-911-11	INDUCTOR
FB003	1-412-911-11	INDUCTOR
FB004	1-412-911-11	INDUCTOR
FB005	1-412-911-11	INDUCTOR
FB006	1-412-911-11	INDUCTOR
FB007	1-412-911-11	INDUCTOR
FB008	1-412-911-11	INDUCTOR
FB009	1-412-911-11	INDUCTOR
FB010	1-412-911-11	INDUCTOR
FB011	1-412-911-11	INDUCTOR
FB012	1-412-911-11	INDUCTOR
FB013	1-412-911-11	INDUCTOR
FB101 ⚠	1-500-104-21	INDUCTOR
FB102 ⚠	1-414-793-21	INDUCTOR
FB103	1-500-104-21	INDUCTOR
FB104	1-412-911-11	INDUCTOR
FB110	1-412-911-11	INDUCTOR
FB201 ⚠	1-500-104-21	INDUCTOR
FB202 ⚠	1-414-793-21	INDUCTOR
FB203	1-500-104-21	INDUCTOR
FB210	1-412-911-11	INDUCTOR
FB301 ⚠	1-500-104-21	INDUCTOR
FB302 ⚠	1-414-793-21	INDUCTOR
FB303	1-500-104-21	INDUCTOR
FB310	1-412-911-11	INDUCTOR

IC

IC001	8-759-474-78	IC MM1382
IC002	8-759-435-33	IC LM2405T
IC003	8-759-399-76	IC SNY425
IC004	8-759-434-40	IC TDA6103Q/N3,112
IC005	8-759-634-51	IC M5218AP

JACK

J001 ⚠	1-251-598-11	SOCKET, CRT

COIL

L001	1-412-537-31	INDUCTOR	100UH
L101	1-407-500-00	INDUCTOR	4.7MMH
L105	1-410-750-41	INDUCTOR	0.47UH
L201	1-407-500-00	INDUCTOR	4.7MMH
L205	1-410-750-41	INDUCTOR	0.47UH
L301	1-407-500-00	INDUCTOR	4.7MMH
L305	1-410-750-41	INDUCTOR	0.47UH

TRANSISTOR

Q001	8-729-032-61	TRANSISTOR 2SC5022-02
Q002	8-729-216-22	TRANSISTOR 2SA1162-G
Q003	8-729-216-22	TRANSISTOR 2SA1162-G
Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q005	8-729-216-22	TRANSISTOR 2SA1162-G			
Q006	8-729-216-22	TRANSISTOR 2SA1162-G			
		RESISTOR			
R001	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R002	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R003	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R004	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R005	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R006	1-216-025-91	METAL GLAZE	100	5%	1/10W
R007	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R008	1-216-025-91	METAL GLAZE	100	5%	1/10W
R010	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R011	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R012	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R013	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R014	1-216-025-91	METAL GLAZE	100	5%	1/10W
R015	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R016	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R017	1-216-025-91	METAL GLAZE	100	5%	1/10W
R018	1-216-025-91	METAL GLAZE	100	5%	1/10W
R019	1-216-025-91	METAL GLAZE	100	5%	1/10
R020	1-216-025-91	METAL GLAZE	100	5%	1/10W
R021	1-216-025-91	METAL GLAZE	100	5%	1/10W
R022	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R024	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R025	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R026	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R027	1-218-756-11	METAL CHIP	150K	0.50%	1/10W
R028	1-216-372-11	METAL OXIDE	1.8	5%	2W F
R029	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R030	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R031	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R032	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R033	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R035	1-216-017-91	METAL GLAZE	47	5%	1/10W
R036	1-216-017-91	METAL GLAZE	47	5%	1/10W
R039	1-218-764-11	METAL CHIP	330K	0.50%	1/10W
R040	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R045	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R048	1-211-885-21	METAL	2.2M	5%	1W
R049	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R053	1-219-621-91	METAL	22M	10%	1/4W
R057	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R058	1-216-041-00	METAL GLAZE	470	5%	1/10W
R064	1-202-830-00	SOLID	10K	20%	1/2W
R077	1-216-047-91	METAL GLAZE	820	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R101	1-216-022-00	METAL GLAZE	75	5%	1/10W
R102	1-216-017-91	METAL GLAZE	47	5%	1/10W
R103	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R104	1-216-017-91	METAL GLAZE	47	5%	1/10W
R105	1-216-037-00	METAL GLAZE	330	5%	1/10W
R106	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R107	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R108	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R109	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R110	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R111	1-249-412-11	CARBON	390	5%	1/4W
R114	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R115	1-249-401-11	CARBON	47	5%	1/4W F
R151	1-202-549-00	SOLID	100	20%	1/2W
R162	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R201	1-216-022-00	METAL GLAZE	75	5%	1/10W
R202	1-216-017-91	METAL GLAZE	47	5%	1/10W
R203	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R204	1-216-021-00	METAL GLAZE	68	5%	1/10W
R205	1-216-037-00	METAL GLAZE	330	5%	1/10W
R206	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R207	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R208	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R209	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R210	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R211	1-249-412-11	CARBON	390	5%	1/4W
R214	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R215	1-249-401-11	CARBON	47	5%	1/4W F
R251	1-202-549-00	SOLID	100	20%	1/2W
R262	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R301	1-216-022-00	METAL GLAZE	75	5%	1/10W
R302	1-216-017-91	METAL GLAZE	47	5%	1/10W
R303	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R304	1-216-013-00	METAL GLAZE	33	5%	1/10W
R305	1-216-037-00	METAL GLAZE	330	5%	1/10W
R306	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R307	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R308	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R309	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R310	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R311	1-249-412-11	CARBON	390	5%	1/4W
R314	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R315	1-249-401-11	CARBON	47	5%	1/4W F
R351	1-202-549-00	SOLID	100	20%	1/2W
R362	1-216-049-91	METAL GLAZE	1K	5%	1/10W

A D

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REF.NO.	PART NO.	DESCRIPTION	REMARK

SPARK GAP

SG001	⚠ 1-519-422-11	GAP, SPARK	
SG003	⚠ 1-517-499-21	GAP, SPARK	
SG101	⚠ 1-517-499-21	GAP, SPARK	
SG201	⚠ 1-517-499-21	GAP, SPARK	
SG301	⚠ 1-517-499-21	GAP, SPARK	

CRYSTAL

X1	1-567-890-11	VIBRATOR, CRYSTAL	

D

*** A-1346-658-A D BOARD, COMPLETE**

1-533-223-11 HOLDER, FUSE
* 1-900-801-67 CONNECTOR ASSY
4-060-502-01 HOLDER, LED (A)
4-382-854-11 SCREW (M3X10), P, SW (+)
4-389-025-01 SCREW (M4) (EXT TOOTH WASHER)
7-685-647-79 SCREW +BVTP 3X10 TYPE2

CAPACITOR

C401	1-128-528-11	ELECT	470MF	20%	25V
C402	1-106-228-00	MYLAR	0.22MF	10%	100V
C403	1-137-399-11	FILM	0.1MF	5%	50V
C404	1-107-894-11	ELECT	220MF	20%	35V
C405	1-101-006-00	CERAMIC	0.047MF		50V
C406	1-137-375-11	FILM	0.068MF	5%	50V
C410	1-107-914-11	ELECT	1000MF	20%	25V
C420	1-137-368-11	FILM	0.0047MF	5%	50V
C500	1-136-169-00	FILM	0.22MF	5%	50V
C502	1-137-370-11	FILM	0.01MF	5%	50V
C503	1-107-667-11	ELECT	2.2MF	20%	160V
C505	1-126-964-11	ELECT	10MF	20%	50V
C506	1-137-370-11	FILM	0.01MF	5%	50V
C507	1-162-318-11	CERAMIC	0.001MF	10%	500V
C508	1-109-843-11	CERAMIC	33PF	5%	2KV
C509	1-137-374-11	FILM	0.047MF	5%	50V
C512	1-137-399-11	FILM	0.1MF	5%	50V
C513	1-106-383-00	MYLAR	0.047MF	10%	200V
C514	1-126-941-11	ELECT	470MF	20%	25V
C515	1-136-203-11	FILM	10000PF	5%	630V
C516	1-126-960-11	ELECT	1MF	20%	50V
C517	1-137-370-11	FILM	0.01MF	5%	50V
C518	1-165-136-11	CERAMIC	3300PF	10%	500V
C519	1-126-961-11	ELECT	2.2MF	20%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C520	1-107-955-11	ELECT	100MF	20%	200V
C521	1-126-960-11	ELECT	1MF	20%	50V
C523	1-106-375-12	MYLAR	0.022MF	10%	100V
C527	1-162-117-00	CERAMIC	100PF	10%	500V
C528	1-126-965-11	ELECT	22MF	20%	50V
C529	1-107-846-11	FILM	0.1MF	5%	400V
C531	1-137-399-11	FILM	0.1MF	5%	50V
C532	1-106-364-11	MYLAR	0.01MF	10%	200V
C533	1-164-735-11	CAPACITOR	0.0015MF	10%	500V
C534	1-115-349-51	CERAMIC	0.01MF		2KV
C536	1-106-375-12	MYLAR	0.022MF	10%	100V
C540	⚠ 1-136-064-00	FILM	2200PF	3%	2KV
C541	⚠ 1-113-576-11	FILM	0.0043MF	3%	2.5KV
C542	1-137-370-11	FILM	0.01MF	5%	50V
C547	1-126-941-11	ELECT	470MF	20%	25V
C548	1-137-425-11	FILM	0.33MF	10%	100V
C549	1-137-399-11	FILM	0.1MF	5%	50V
C550	1-117-206-21	FILM	0.36MF	5%	250V
C562	1-107-846-11	FILM	0.1MF	5%	400V
C565	1-136-169-00	FILM	0.22MF	5%	50V
C566	1-137-370-11	FILM	0.01MF	5%	50V
C567	1-137-370-11	FILM	0.01MF	5%	50V
C568	1-137-370-11	FILM	0.01MF	5%	50V
C569	1-137-370-11	FILM	0.01MF	5%	50V
C570	1-115-519-11	FILM	0.56MF	5%	250V
C576	1-115-514-11	FILM	0.22MF	5%	250V
C582	1-161-754-00	CERAMIC	0.001MF	10%	2KV
C583	1-106-375-12	MYLAR	0.022MF	10%	100V
C593	1-109-945-11	FILM	0.18MF	5%	200V
C598	1-137-399-11	FILM	0.1MF	5%	50V
C599	1-128-582-11	ELECT	10MF	20%	100V
C601	⚠ 1-104-708-11	FILM	0.47MF	20%	250V
C602	⚠ 1-107-533-11	FILM	1MF	20%	250V
C603	⚠ 1-113-912-11	CERAMIC	0.0047MF	20%	250V
C604	⚠ 1-113-912-11	CERAMIC	0.0047MF	20%	250V
C605	⚠ 1-113-896-11	CERAMIC	220PF	10%	250V
C606	⚠ 1-113-896-11	CERAMIC	220PF	10%	250V
C607	1-137-368-11	FILM	0.0047MF	5%	50V
C608	1-107-894-11	ELECT	220MF	20%	35V
C609	1-137-399-11	FILM	0.1MF	5%	50V
C610	1-102-115-00	CERAMIC	560PF	10%	50V
C611	1-136-177-00	FILM	1MF	5%	50V
C612	1-137-370-11	FILM	0.01MF	5%	50V
C614	1-102-973-00	CERAMIC	100PF	5%	50V
C615	1-137-364-11	FILM	0.001MF	5%	50V
C616	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C617	1-106-343-00	MYLAR	0.001MF	10%	100V
C618	1-107-884-11	ELECT	1000MF	20%	16V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C619	1-137-366-11	FILM	0.0022MF	5%	50V
C620	⚠ 1-109-984-11	ELECT	390MF	20%	400V
C621	1-136-203-11	FILM	10000PF	5%	630V
C622	⚠ 1-113-912-11	CERAMIC	0.0047MF	20%	250V
C628	1-137-399-11	FILM	0.1MF	5%	50V
C634	1-126-941-11	ELECT	470MF	20%	25V
C635	1-126-935-11	ELECT	470MF	20%	16V
C650	1-125-700-11	ELECT	220MF	20%	200V
C651	1-107-933-11	ELECT	100MF	20%	100V
C652	1-107-914-11	ELECT	1000MF	20%	25V
C653	1-126-941-11	ELECT	470MF	20%	25V
C662	1-126-941-11	ELECT	470MF	20%	25V
C675	1-137-364-11	FILM	0.001MF	5%	50V
C678	1-162-115-00	CERAMIC	330PF	10%	2KV
C802	1-102-074-00	CERAMIC	0.001MF	10%	50V
C803	1-102-106-00	CERAMIC	100PF	10%	50V
C804	1-137-364-11	FILM	0.001MF	5%	50V
C805	1-126-965-11	ELECT	22MF	20%	50V
C806	1-126-767-11	ELECT	1000MF	20%	16V
C807	1-137-399-11	FILM	0.1MF	5%	50V
C808	1-137-365-11	FILM	0.0015MF	5%	50V
C810	1-124-768-11	ELECT	4.7MF	20%	35V
C811	1-137-399-11	FILM	0.1MF	5%	50V
C812	1-137-365-11	FILM	0.0015MF	5%	50V
C813	1-137-370-11	FILM	0.01MF	5%	50V
C814	1-136-169-00	FILM	0.22MF	5%	50V
C815	1-137-366-11	FILM	0.0022MF	5%	50V
C817	1-126-933-11	ELECT	100MF	20%	16V
C818	1-137-399-11	FILM	0.1MF	5%	50V
C819	1-136-173-00	FILM	0.47MF	5%	50V
C820	1-137-366-11	FILM	0.0022MF	5%	50V
C821	1-102-112-00	CERAMIC	330PF	10%	50V
C822	1-137-368-11	FILM	0.0047MF	5%	50V
C901	1-137-399-11	FILM	0.1MF	5%	50V
C902	1-137-368-11	FILM	0.0047MF	5%	50V
C903	1-102-951-00	CERAMIC	15PF	5%	50V
C904	1-137-399-11	FILM	0.1MF	5%	50V
C905	1-137-399-11	FILM	0.1MF	5%	50V
C906	1-136-173-00	FILM	0.47MF	5%	50V
C907	1-126-963-11	ELECT	4.7MF	20%	50V
C908	1-102-951-00	CERAMIC	15PF	5%	50V
C910	1-104-664-11	ELECT	47MF	20%	25V
C911	1-126-768-11	ELECT	2200MF	20%	16V
C912	1-126-961-11	ELECT	2.2MF	20%	50V
C913	1-126-961-11	ELECT	2.2MF	20%	50V
C915	1-124-768-11	ELECT	4.7MF	20%	35V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C916	1-126-961-11	ELECT	2.2MF	20%	50V
C917	1-126-961-11	ELECT	2.2MF	20%	50V
C918	1-126-961-11	ELECT	2.2MF	20%	50V
C919	1-126-961-11	ELECT	2.2MF	20%	50V
C920	1-126-961-11	ELECT	2.2MF	20%	50V
C921	1-126-961-11	ELECT	2.2MF	20%	50V
C923	1-137-370-11	FILM	0.01MF	5%	50V
C924	1-137-399-11	FILM	0.1MF	5%	50V
C925	1-126-934-11	ELECT	220MF	20%	16V
C926	1-137-364-11	FILM	0.001MF	5%	50V
C927	1-104-664-11	ELECT	47MF	20%	25V
C928	1-137-370-11	FILM	0.01MF	5%	50V
C929	1-137-399-11	FILM	0.1MF	5%	50V
C930	1-126-965-11	ELECT	22MF	20%	50V
C931	1-136-169-00	FILM	0.22MF	5%	50V
C932	1-137-399-11	FILM	0.1MF	5%	50V
C933	1-126-934-11	ELECT	220MF	20%	16V
C934	1-126-961-11	ELECT	2.2MF	20%	50V
C935	1-136-169-00	FILM	0.22MF	5%	50V
C937	1-126-935-11	ELECT	470MF	20%	16V
C939	1-137-374-11	FILM	0.047MF	5%	50V
C940	1-137-374-11	FILM	0.047MF	5%	50V
C941	1-136-169-00	FILM	0.22MF	5%	50V
C942	1-126-926-11	ELECT	1000MF	20%	10V
C943	1-137-372-11	FILM	0.022MF	5%	50V
C944	1-137-366-11	FILM	0.0022MF	5%	50V
C945	1-137-372-11	FILM	0.022MF	5%	50V
C946	1-102-106-00	CERAMIC	100PF	10%	50V
C948	1-137-399-11	FILM	0.1MF	5%	50V
C950	1-117-378-11	FILM	1MF	5%	50V
C955	1-102-106-00	CERAMIC	100PF	10%	50V
C960	1-136-177-00	FILM	1MF	5%	50V
C961	1-137-399-11	FILM	0.1MF	5%	50V
C962	1-137-399-11	FILM	0.1MF	5%	50V
C963	1-137-399-11	FILM	0.1MF	5%	50V
C967	1-102-106-00	CERAMIC	100PF	10%	50V
C968	1-126-960-11	ELECT	1MF	20%	50V
C969	1-137-364-11	FILM	0.001MF	5%	50V
C970	1-102-106-00	CERAMIC	100PF	10%	50V
C1801	1-102-112-00	CERAMIC	330PF	10%	50V
C1802	1-102-112-00	CERAMIC	330PF	10%	50V
C1803	1-136-169-00	FILM	0.22MF	5%	50V

CONNECTOR

CN501 *	1-580-798-11	CONNECTOR PIN (DY) 6P	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
CN503 *	1-900-801-16	CONNECTOR ASSY, 2P BOARD IN	
CN504	1-695-915-11	TAB (CONTACT)	
CN505	1-564-513-11	PLUG, CONNECTOR 10P	
CN508 *	1-564-514-11	PLUG, CONNECTOR 11P	
CN509 *	1-508-879-11	BASE POST 4P	
CN511	1-564-511-11	PLUG, CONNECTOR 8P	
CN512	1-695-915-11	TAB (CONTACT)	
CN600 ⚠	1-251-227-11	INLET, AC	
CN601	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN605 *	1-506-371-00	PIN, CONNECTOR 2P	
CN610	1-695-915-11	TAB (CONTACT)	

DIODE

D401	8-719-921-40	DIODE UZ-4.7BSC	
D402	8-719-979-58	DIODE EGP10D	
D403	8-719-908-03	DIODE GP08D	
D501	8-719-061-21	DIODE FMQ-G5FMS	
D502	8-719-110-49	DIODE RD18ESB2	
D503	8-719-911-19	DIODE 1SS119-25	
D504	8-719-051-97	DIODE 3DL41A(LC6-15)	
D505	8-719-110-17	DIODE RD10ESB2	
D506	8-719-110-67	DIODE RD27ESB2	
D508	8-719-975-77	DIODE SB340	
D509	8-719-979-58	DIODE EGP10D	
D510	8-719-979-58	DIODE EGP10D	
D511 ⚠	8-719-110-67	DIODE RD27ESB2	
D515	8-719-979-58	DIODE EGP10D	
D522	8-719-911-19	DIODE 1SS119-25	
D526	8-719-018-82	DIODE RGP02-20EL-6394	
D595	8-719-911-19	DIODE 1SS119-25	
D596	8-719-911-19	DIODE 1SS119-25	
D598	8-719-110-49	DIODE RD18ESB2	
D601 ⚠	8-719-025-88	DIODE GBU4JL-6088	
D602	8-719-970-83	DIODE HSS82	
D603	8-719-110-49	DIODE RD18ESB2	
D604	8-719-053-19	DIODE UF4007G23	
D605	8-719-970-83	DIODE HSS82	
D607	8-719-979-58	DIODE EGP10D	
D608	8-719-986-73	DIODE RB441Q	
D609	8-719-982-03	DIODE MTZJ-3.6A	
D614	8-719-110-08	DIODE RD8.2ESB2	
D650	8-719-054-72	DIODE 31DF6-FC5	
D651	8-719-979-58	DIODE EGP10D	
D652	8-719-979-50	DIODE EGP30D	
D653	8-719-979-84	DIODE EGP20DPKG23	
D654	8-719-051-97	DIODE 3DL41A(LC6-15)	
D656	8-719-054-72	DIODE 31DF6-FC5	
D670	8-719-911-19	DIODE 1SS119-25	
D801	8-719-911-19	DIODE 1SS119-25	
D803	8-719-911-19	DIODE 1SS119-25	
D804	8-719-911-19	DIODE 1SS119-25	
D903	8-719-970-83	DIODE HSS82	
D906	8-719-923-38	DIODE RD5.6ESB2	
D907	8-719-923-38	DIODE RD5.6ESB2	
D908	8-719-911-19	DIODE 1SS119-25	
D909	8-719-923-38	DIODE RD5.6ESB2	
D910	8-719-911-19	DIODE 1SS119-25	
D913	8-719-067-04	DIODE 339VYUGW/R2	
D915	8-719-911-19	DIODE 1SS119-25	
D916	8-719-911-19	DIODE 1SS119-25	
D917	8-719-911-19	DIODE 1SS119-25	
D918	8-719-911-19	DIODE 1SS119-25	
D920	8-719-921-40	DIODE UZ-4.7BSC	
D921	8-719-911-19	DIODE 1SS119-25	
D922	8-719-911-19	DIODE 1SS119-25	
D923	8-719-911-19	DIODE 1SS119-25	
D924	8-719-911-19	DIODE 1SS119-25	
D944	8-719-911-19	DIODE 1SS119-25	
D945	8-719-911-19	DIODE 1SS119-25	
D946	8-719-911-19	DIODE 1SS119-25	

FUSE

F601 ⚠	1-576-231-11	FUSE (H.B.C.) 4A/250V	

FERRITE BEAD

FB501	1-410-396-41	INDUCTOR	0.45UH
FB502	1-412-911-11	INDUCTOR	
FB503	1-412-911-11	INDUCTOR	
FB524	1-412-911-11	INDUCTOR	
FB525	1-412-911-11	INDUCTOR	
FB601	1-412-911-11	INDUCTOR	
FB602	1-412-911-11	INDUCTOR	
FB603	1-412-911-11	INDUCTOR	
FB604	1-412-911-11	INDUCTOR	
FB605	1-412-911-11	INDUCTOR	
FB606	1-412-911-11	INDUCTOR	
FB607	1-412-911-11	INDUCTOR	
FB608 ⚠	1-412-911-11	INDUCTOR	
FB609 ⚠	1-412-911-11	INDUCTOR	
FB610 ⚠	1-412-911-11	INDUCTOR	
FB611 ⚠	1-412-911-11	INDUCTOR	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
FB612	⚠ 1-412-911-11	INDUCTOR	
FB613	⚠ 1-412-911-11	INDUCTOR	
FB614	⚠ 1-412-911-11	INDUCTOR	
FB615	⚠ 1-412-911-11	INDUCTOR	
FB901	1-412-911-11	INDUCTOR	
FB902	1-412-911-11	INDUCTOR	
FB903	1-412-911-11	INDUCTOR	
FB904	1-412-911-11	INDUCTOR	
FB905	1-412-911-11	INDUCTOR	

TERMINAL

GT001 *	1-537-738-21	TERMINAL, EARTH	
GT002 *	1-537-738-21	TERMINAL, EARTH	

IC

IC400	8-759-803-42	IC LA6500-FA	
IC401	8-759-980-58	IC TDA8172	
IC601	⚠ 8-759-399-81	IC MC44603P	
IC603	⚠ 8-749-014-41	IC MOC8105TV	
IC604	⚠ 8-759-072-98	IC TDA8138A	
IC652	⚠ 8-759-466-13	IC TL431ACLPRP	
IC801	⚠ 8-759-466-15	IC UPC6753	
IC901	8-749-014-36	IC ST7272N5B1/CUS	
IC902	⚠ 8-759-269-04	IC SN74HCT02AN	
IC903	8-759-165-81	IC PST600D-T	
IC904	⚠ 8-759-399-77	IC TDA9105	

COIL

L501	1-412-550-11	INDUCTOR	1.2MMH
L504	1-459-104-00	COIL, WITH CORE	
L505	1-412-531-31	INDUCTOR	33UH
L506	1-459-104-00	COIL, WITH CORE	
L507	1-412-531-31	INDUCTOR	33UH
L513	1-409-896-11	COIL, HORIZONTAL LINEARITY	
L650	1-412-537-31	INDUCTOR	100UH
L651	1-412-537-31	INDUCTOR	100UH
L652	1-406-665-11	COIL, CHOKE	100UH
L653	1-412-537-31	INDUCTOR	100UH
L801	1-410-645-31	INDUCTOR	100UH
L900	1-410-645-31	INDUCTOR	100UH

FILTER

LF601	⚠ 1-429-180-11	TRANSFORMER, LINE FILTER	

REF.NO.	PART NO.	DESCRIPTION	REMARK

TRANSISTOR

Q500	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)	
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q502	⚠ 8-729-043-37	TRANSISTOR IRFU214	
Q503	8-729-027-97	TRANSISTOR IRFI9630G-LF	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q507	8-729-030-67	TRANSISTOR 2SC5129(LBSONY1)	
Q508	⚠ 8-729-042-24	TRANSISTOR 2SB949-LE	
Q509	⚠ 8-729-042-33	TRANSISTOR 2SD1275Q-LE	
Q510	8-729-027-82	TRANSISTOR IRFPE40LF20	
	4-060-503-01	SHEET, INSULATING (for Q510)	
Q512	8-729-027-14	TRANSISTOR 2SK1904	
Q513	8-729-027-14	TRANSISTOR 2SK1904	
Q514	8-729-027-14	TRANSISTOR 2SK1904	
Q515	8-729-140-50	TRANSISTOR 2SC3209LK	
Q528	8-729-140-50	TRANSISTOR 2SC3209LK	
Q529	8-729-028-34	TRANSISTOR 2SD1640Q,R	
Q602	⚠ 8-729-926-79	TRANSISTOR IRFIBC40	
Q654	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q655	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q656	⚠ 8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q670	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2	
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q902	8-729-029-86	TRANSISTOR DTC124ESA	
Q903	8-729-107-78	TRANSISTOR 2SC3623-K	

RESISTOR

R401	1-249-425-11	CARBON	4.7K	5%	1/4W	
R407	1-215-447-00	METAL	12K	1%	1/4W	
R408	1-249-383-11	CARBON	1.5	5%	1/4W	F
R410	1-215-859-00	METAL OXIDE	22	5%	1W	F
R411	1-215-445-00	METAL	10K	1%	1/4W	
R412	1-215-421-00	METAL	1K	1%	1/4W	
R418	1-214-798-21	METAL	1.8	1%	1/2W	
R420	1-215-461-00	METAL	47K	1%	1/4W	
R421	1-214-798-21	METAL	1.8	1%	1/2W	
R422	1-215-866-11	METAL OXIDE	330	5%	1W	F
R423	1-215-439-00	METAL	5.6K	1%	1/4W	
R424	1-215-447-00	METAL	12K	1%	1/4W	
R425	1-215-441-00	METAL	6.8K	1%	1/4W	
R426	1-249-383-11	CARBON	1.5	5%	1/4W	F
R427	1-215-447-00	METAL	12K	1%	1/4W	
R500	1-249-405-11	CARBON	100	5%	1/4W	F
R501	1-247-863-91	CARBON	22K	5%	1/4W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	
R504	1-215-888-00	METAL OXIDE	220	5%	2W	F
R505	1-247-863-91	CARBON	22K	5%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R506	1-216-391-11	METAL OXIDE	1.5	5%	3W F
R507	1-249-437-11	CARBON	47K	5%	1/4W
R508	1-216-391-11	METAL OXIDE	1.5	5%	3W F
R509	1-249-389-11	CARBON	4.7	5%	1/4W F
R510	1-249-389-11	CARBON	4.7	5%	1/4W
R511	1-249-401-11	CARBON	47	5%	1/4W
R512	1-247-881-00	CARBON	120K	5%	1/4W
R513	1-249-429-11	CARBON	10K	5%	1/4W
R514	1-249-429-11	CARBON	10K	5%	1/4W
R515	1-215-481-00	METAL	330K	1%	1/4W
R517	1-249-417-11	CARBON	1K	5%	1/4W F
R518	1-249-417-11	CARBON	1K	5%	1/4W F
R519	1-249-437-11	CARBON	47K	5%	1/4W
R520	1-249-417-11	CARBON	1K	5%	1/4W F
R521	1-249-389-11	CARBON	4.7	5%	1/4W F
R522	1-249-417-11	CARBON	1K	5%	1/4W F
R523	1-249-377-11	CARBON	0.47	5%	1/4W F
R524	1-216-447-00	METAL OXIDE	27	5%	2W F
R525	1-249-426-11	CARBON	5.6K	5%	1/4W
R526	1-249-377-11	CARBON	0.47	5%	1/4W F
R527	1-215-913-11	METAL OXIDE	220	5%	3W F
R528	1-215-910-00	METAL OXIDE	68	5%	3W F
R529	1-249-441-11	CARBON	100K	5%	1/4W
R530	1-216-474-11	METAL OXIDE	82	5%	3W F
R531	1-216-474-11	METAL OXIDE	82	5%	3W F
R532	1-249-389-11	CARBON	4.7	5%	1/4W F
R533	⚠ 1-215-488-00	METAL	620K	1%	1/4W
R534	⚠ 1-215-468-00	METAL	91K	1%	1/4W
R535	⚠ 1-215-473-00	METAL	150K	1%	1/4W
R536	1-249-428-11	CARBON	8.2K	5%	1/4W
R537	1-249-397-11	CARBON	22	5%	1/4W F
R538	1-215-441-00	METAL	6.8K	1%	1/4W
R539	1-215-476-00	METAL	200K	1%	1/4W
R540	1-215-457-00	METAL	33K	1%	1/4W
R541	1-215-443-00	METAL	8.2K	1%	1/4W
R542	⚠ 1-215-429-00	METAL	2.2K	1%	1/4W
R543	⚠ 1-215-429-00	METAL	2.2K	1%	1/4W
R544	⚠ 1-215-463-00	METAL	56K	1%	1/4W
R545	⚠ 1-215-461-00	METAL	47K	1%	1/4W
R546	1-249-397-11	CARBON	22	5%	1/4W F
R547	1-249-424-11	CARBON	3.9K	5%	1/4W
R548	1-215-437-00	METAL	4.7K	1%	1/4W
R549	1-215-880-00	METAL OXIDE	10	5%	2W F
R550	1-249-429-11	CARBON	10K	5%	1/4W
R551	1-215-423-00	METAL	1.2K	1%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R552	1-249-385-11	CARBON	2.2	5%	1/4W F
R553	1-249-421-11	CARBON	2.2K	5%	1/4W
R554	1-249-421-11	CARBON	2.2K	5%	1/4W
R555	1-249-377-11	CARBON	0.47	5%	1/4W F
R556	1-202-818-00	SOLID	1K	20%	1/2W
R563	1-249-421-11	CARBON	2.2K	5%	1/4W
R564	1-249-421-11	CARBON	2.2K	5%	1/4W
R565	1-215-483-00	METAL	390K	1%	1/4W
R567	1-215-880-00	METAL OXIDE	10	5%	2W F
R598	1-215-453-00	METAL	22K	1%	1/4W
R599	1-215-467-00	METAL	82K	1%	1/4W
R601	⚠ 1-202-847-00	SOLID	560K	20%	1/2W
R602	⚠ 1-205-998-11	WIREWOUND	1	5%	10W
R603	⚠ 1-202-933-61	FUSIBLE	0.1	10%	1/2W F
R604	1-215-926-00	METAL OXIDE	33K	5%	3W F
R605	1-249-437-11	CARBON	47K	5%	1/4W
R606	1-249-417-11	CARBON	1K	5%	1/4W
R607	1-247-791-91	CARBON	22	5%	1/4W
R608	1-249-429-11	CARBON	10K	5%	1/4W
R609	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R610	1-215-925-11	METAL OXIDE	22K	5%	3W F
R611	1-247-885-00	CARBON	180K	5%	1/4W
R612	1-249-431-11	CARBON	15K	5%	1/4W
R613	1-249-411-11	CARBON	330	5%	1/4W
R614	1-249-421-11	CARBON	2.2K	5%	1/4W
R615	1-249-377-11	CARBON	0.47	5%	1/4W F
R619	1-249-425-11	CARBON	4.7K	5%	1/4W
R621	1-249-434-11	CARBON	27K	5%	1/4W
R623	1-215-445-00	METAL	10K	1%	1/4W
R631	1-215-405-00	METAL	220	1%	1/4W
R651	1-215-878-00	METAL OXIDE	33K	5%	1W F
R652	⚠ 1-211-874-11	FUSIBLE	0.12	10%	1/2W
R654	⚠ 1-219-154-11	FUSIBLE	0.12	10%	1/4W
R655	1-249-417-11	CARBON	1K	5%	1/4W
R656	1-249-417-11	CARBON	1K	5%	1/4W
R657	1-249-429-11	CARBON	10K	5%	1/4W
R658	1-215-417-00	METAL	680	1%	1/4W
R659	1-215-483-00	METAL	390K	1%	1/4W
R660	1-215-443-00	METAL	8.2K	1%	1/4W
R661	1-247-895-91	CARBON	470K	5%	1/4W
R662	1-215-457-00	METAL	33K	1%	1/4W
R663	1-249-429-11	CARBON	10K	5%	1/4W
R664	1-216-352-11	METAL OXIDE	1.8	5%	1W F
R665	1-249-429-11	CARBON	10K	5%	1/4W
R666	1-249-429-11	CARBON	10K	5%	1/4W
R667	⚠ 1-211-881-11	FUSIBLE	0.47	10%	1/2W
R670	1-249-417-11	CARBON	1K	5%	1/4W

D

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R671	1-249-417-11	CARBON	1K	5%	1/4W
R672	1-249-403-11	CARBON	68	5%	1/4W
R673	1-249-429-11	CARBON	10K	5%	1/4W
R674	1-249-429-11	CARBON	10K	5%	1/4W
R801	1-249-377-11	CARBON	0.47	5%	1/4W F
R807	1-249-438-11	CARBON	56K	5%	1/4W
R808	1-215-485-00	METAL	470K	1%	1/4W
R809	1-215-483-00	METAL	390K	1%	1/4W
R811	1-249-432-11	CARBON	18K	5%	1/4W
R815	1-215-457-00	METAL	33K	1%	1/4W
R817	1-215-461-00	METAL	47K	1%	1/4W
R819	1-215-457-00	METAL	33K	1%	1/4W
R820	1-215-455-00	METAL	27K	1%	1/4W
R821	1-215-465-00	METAL	68K	1%	1/4W
R822	1-215-471-00	METAL	120K	1%	1/4W
R823	1-215-481-00	METAL	330K	1%	1/4W
R824	1-249-429-11	CARBON	10K	5%	1/4W
R825	1-259-878-11	CARBON	1.5M	5%	1/4W
R830	1-215-461-00	METAL	47K	1%	1/4W
R831	1-215-405-00	METAL	220	1%	1/4W
R900	1-249-417-11	CARBON	1K	5%	1/4W
R901	1-249-425-11	CARBON	4.7K	5%	1/4W
R902	1-249-425-11	CARBON	4.7K	5%	1/4W
R903	1-249-425-11	CARBON	4.7K	5%	1/4W
R904	1-249-425-11	CARBON	4.7K	5%	1/4W
R905	1-249-425-11	CARBON	4.7K	5%	1/4W
R906	1-215-449-00	METAL	15K	1%	1/4W
R907	1-249-417-11	CARBON	1K	5%	1/4W
R908	1-249-425-11	CARBON	4.7K	5%	1/4W
R909	1-249-437-11	CARBON	47K	5%	1/4W
R910	1-247-895-91	CARBON	470K	5%	1/4W
R911	1-249-431-11	CARBON	15K	5%	1/4W
R912	1-249-413-11	CARBON	470	5%	1/4W
R914	1-249-421-11	CARBON	2.2K	5%	1/4W
R915	1-249-417-11	CARBON	1K	5%	1/4W
R916	1-249-417-11	CARBON	1K	5%	1/4W
R917	1-249-417-11	CARBON	1K	5%	1/4W
R918	1-249-435-11	CARBON	33K	5%	1/4W
R919	1-249-425-11	CARBON	4.7K	5%	1/4W
R920	1-249-417-11	CARBON	1K	5%	1/4W
R921	1-247-863-91	CARBON	22K	5%	1/4W
R924	1-249-434-11	CARBON	27K	5%	1/4W
R925	1-249-432-11	CARBON	18K	5%	1/4W
R926	1-249-434-11	CARBON	27K	5%	1/4W
R927	1-249-434-11	CARBON	27K	5%	1/4W
R928	1-249-434-11	CARBON	27K	5%	1/4W
R929	1-249-436-11	CARBON	39K	5%	1/4W
R930	1-249-434-11	CARBON	27K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R931	1-249-428-11	CARBON	8.2K	5%	1/4W
R932	1-249-428-11	CARBON	8.2K	5%	1/4W
R933	1-249-431-11	CARBON	15K	5%	1/4W
R934	1-249-429-11	CARBON	10K	5%	1/4W
R935	1-249-428-11	CARBON	8.2K	5%	1/4W
R936	1-249-425-11	CARBON	4.7K	5%	1/4W
R937	1-249-428-11	CARBON	8.2K	5%	1/4W
R938	1-249-428-11	CARBON	8.2K	5%	1/4W
R939	1-249-417-11	CARBON	1K	5%	1/4W
R940	1-249-434-11	CARBON	27K	5%	1/4W
R941	1-249-428-11	CARBON	8.2K	5%	1/4W
R942	1-249-434-11	CARBON	27K	5%	1/4W
R943	1-249-428-11	CARBON	8.2K	5%	1/4W
R944	1-249-424-11	CARBON	3.9K	5%	1/4W
R945	1-249-424-11	CARBON	3.9K	5%	1/4W
R946	1-247-903-00	CARBON	1M	5%	1/4W
R947	1-247-883-00	CARBON	150K	5%	1/4W
R948	1-247-883-00	CARBON	150K	5%	1/4W
R949	1-247-883-00	CARBON	150K	5%	1/4W
R950	1-247-883-00	CARBON	150K	5%	1/4W
R951	1-247-883-00	CARBON	150K	5%	1/4W
R952	1-247-883-00	CARBON	150K	5%	1/4W
R954	1-249-425-11	CARBON	4.7K	5%	1/4W
R955	1-215-478-00	METAL	240K	1%	1/4W
R956	1-249-421-11	CARBON	2.2K	5%	1/4W
R957	1-215-441-00	METAL	6.8K	1%	1/4W
R958	1-249-420-11	CARBON	1.8K	5%	1/4W
R959	1-249-428-11	CARBON	8.2K	5%	1/4W
R960	1-249-425-11	CARBON	4.7K	5%	1/4W
R962	1-249-429-11	CARBON	10K	5%	1/4W
R963	1-249-429-11	CARBON	10K	5%	1/4W
R964	1-247-883-00	CARBON	150K	5%	1/4W
R965	1-249-415-11	CARBON	680	5%	1/4W
R966	1-247-895-91	CARBON	470K	5%	1/4W
R968	1-247-883-00	CARBON	150K	5%	1/4W
R972	1-249-429-11	CARBON	10K	5%	1/4W
R973	1-249-429-11	CARBON	10K	5%	1/4W
R975	1-249-429-11	CARBON	10K	5%	1/4W
R976	1-249-425-11	CARBON	4.7K	5%	1/4W
R977	1-249-417-11	CARBON	1K	5%	1/4W
R979	1-249-432-11	CARBON	18K	5%	1/4W
R980	1-247-883-00	CARBON	150K	5%	1/4W
R981	1-249-413-11	CARBON	470	5%	1/4W
R983	1-215-467-00	METAL	82K	1%	1/4W
R984	1-249-417-11	CARBON	1K	5%	1/4W
R985	1-247-807-31	CARBON	100	5%	1/4W
R986	1-215-445-00	METAL	10K	1%	1/4W
R987	1-249-425-11	CARBON	4.7K	5%	1/4W
R989	1-249-429-11	CARBON	10K	5%	1/4W

D

Note: **The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.**

Note: The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R990	1-247-807-31	CARBON	100	5%	1/4W
R991	1-247-807-31	CARBON	100	5%	1/4W
R992	1-249-417-11	CARBON	1K	5%	1/4W
R993	1-249-429-11	CARBON	10K	5%	1/4W
R994	1-249-417-11	CARBON	1K	5%	1/4W
R995	1-249-413-11	CARBON	470	5%	1/4W
R996	1-249-429-11	CARBON	10K	5%	1/4W
R997	1-249-417-11	CARBON	1K	5%	1/4W
R998	1-249-429-11	CARBON	10K	5%	1/4W
R999	1-249-413-11	CARBON	470	5%	1/4W
R1801	1-215-433-00	METAL	3.3K	1%	1/4W
R1806	1-215-421-00	METAL	1K	1%	1/4W
R1810	1-215-413-00	METAL	470	1%	1/4W
R1811	1-215-409-00	METAL	330	1%	1/4W
R1812	1-215-413-00	METAL	470	1%	1/4W
R1813	1-215-413-00	METAL	470	1%	1/4W
R1814	1-215-417-00	METAL	680	1%	1/4W
R1815	1-215-469-00	METAL	100K	1%	1/4W
R1818	1-215-425-00	METAL	1.5K	1%	1/4W
R1819	1-215-425-00	METAL	1.5K	1%	1/4W
R1820	1-215-433-00	METAL	3.3K	1%	1/4W
R1822	1-215-433-00	METAL	3.3K	1%	1/4W
R1823	1-215-413-00	METAL	470	1%	1/
R1832	1-215-469-00	METAL	100K	1%	1/4W

VARIABLE RESISTOR

⧓ RV501	⚠ 1-241-767-21	RES, ADJ, CERMET 100K	
	4-060-176-01	COVER, VOLUME 6 MOLD (FOR RV501)	

RELAY

RY601	⚠ 1-755-031-11	RELAY	

SWITCH

S1801	1-692-431-21	SWITCH, TACTILE	
S1802	1-692-431-21	SWITCH, TACTILE	
S1803	1-692-431-21	SWITCH, TACTILE	
S1809	1-692-431-21	SWITCH, TACTILE	
S1815	1-692-220-11	SWITCH, TACTILE	
S1816	1-692-220-11	SWITCH, TACTILE	
S1817	1-692-220-11	SWITCH, TACTILE	
S1818	1-692-220-11	SWITCH, TACTILE	
S1821	1-692-431-21	SWITCH, TACTILE	

SPARK GAP

SG501	⚠ 1-519-422-11	GAP, SPARK	

TRANSFORMER

T501	⚠ 1-453-240-21	TRANSFORMER ASSY, FLYBACK (NX-4130//JIE4)	
T503	1-429-109-11	TRANSFORMER, FERRITE (DFT)	
T504	⚠ 1-431-248-11	TRANSFORMER, HORIZONTAL DRIVE	
T505	1-429-211-11	TRANSFORMER, FERRITE (HST)	
T601	⚠ 1-431-247-11	TRANSFORMER, CONVERTER (SRT)	

THERMISTOR

TH501	1-807-796-11	THERMISTOR	
TH601	⚠ 1-809-827-11	THERMISTOR	
TH602	⚠ 1-809-827-11	THERMISTOR, POSITIVE	

VARISTOR

VA601	⚠ 1-810-622-11	VARISTOR	

CRYSTAL

X900	1-567-890-11	VIBRATOR, CRYSTAL	

MISCELLANEOUS

	⚠ 1-416-282-21	COIL, DEMAGNETIZATION	
	⚠ 1-452-923-21	NECK ASSY (NA-2914)	
	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)	
	⚠ 1-558-481-11	CORD SET, POWER (CPD-200ES SH)	
	⚠ 1-765-717-11	CORD SET, POWER (CPD-200ES EQ)	
	4-060-155-01	HOLDER, HV CABLE	
	3-860-654-01	MANUAL, INSTRUCTION	
	⚠ 8-451-487-11	DY Y17FRG-M	
	⚠ 1-453-240-21	TRANSFORMER ASSY, FLYBACK(NX-4103//JIE4)	
	⚠ 8-738-728-05	CRT, 17FRFM	(CPD-200ES SH)
	⚠ 8-738-733-05	CRT, 17FRFM	(CPD-200ES EQ)
	⚠ 8-738-728-82	ITC ASSY (17FRFM-RS3)	(CPD-200ES SH)
	⚠ 8-738-733-82	ITC ASSY (17FRFM-R2)	(CPD-200ES EQ)
	4-060-206-01	DISK, WINDOWS 95	

Sony Corporation
Sony Technology Center
Product Quality Division
Service Promotion Department

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REF.NO.	PART NO.	DESCRIPTION	REMARK

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